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  * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:30:54 ON 22 SEP 2003

=> fil .bec
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 09:31:02 ON 22 SEP 2003
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s alpha glucosidase#
FILE 'MEDLINE'
        454313 ALPHA
         10022 GLUCOSIDASE#
L1        4246 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'SCISEARCH'
        643876 ALPHA
          7752 GLUCOSIDASE#
L2        2544 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'LIFESCI'
        147374 "ALPHA"
          3858 GLUCOSIDASE#
L3        1407 ALPHA GLUCOSIDASE#
                 ("ALPHA"(W)GLUCOSIDASE#)

FILE 'BIOTECHDS'
         23979 ALPHA
          3042 GLUCOSIDASE#
L4         631 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'BIOSIS'
        596697 ALPHA
         10653 GLUCOSIDASE#
L5        3602 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'EMBASE'
        508813 "ALPHA"
          8954 GLUCOSIDASE#
L6        4846 ALPHA GLUCOSIDASE#
                 ("ALPHA"(W)GLUCOSIDASE#)

FILE 'HCAPLUS'
       1434625 ALPHA
         15609 GLUCOSIDASE#
L7        5050 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'NTIS'
         28426 ALPHA
            91 GLUCOSIDASE#
L8           5 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)
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FILE 'ESBIOBASE'
        176805 ALPHA
          5065 GLUCOSIDASE#
L9         710 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'BIOTECHNO'
        183303 ALPHA
          4163 GLUCOSIDASE#
L10       1741 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

FILE 'WPIDS'
        165002 ALPHA
          1371 GLUCOSIDASE#
L11        591 ALPHA GLUCOSIDASE#
                 (ALPHA(W)GLUCOSIDASE#)

TOTAL FOR ALL FILES
L12      25373 ALPHA GLUCOSIDASE#

=> s l12 and (high mannose)
FILE 'MEDLINE'
       1147840 HIGH
         16633 MANNOSE
          1894 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L13         51 L1 AND (HIGH MANNOSE)

FILE 'SCISEARCH'
       1662292 HIGH
         12311 MANNOSE
          1232 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L14          9 L2 AND (HIGH MANNOSE)

FILE 'LIFESCI'
        319327 "HIGH"
          5538 "MANNOSE"
           619 HIGH MANNOSE
                 ("HIGH"(W)"MANNOSE")
L15          9 L3 AND (HIGH MANNOSE)

FILE 'BIOTECHDS'
         59408 HIGH
          1594 MANNOSE
           124 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L16          2 L4 AND (HIGH MANNOSE)

FILE 'BIOSIS'
       1288397 HIGH
         19310 MANNOSE
          2009 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L17         17 L5 AND (HIGH MANNOSE)

FILE 'EMBASE'
       1110952 "HIGH"
         12998 "MANNOSE"
          1552 HIGH MANNOSE
                 ("HIGH"(W)"MANNOSE")
L18         26 L6 AND (HIGH MANNOSE)
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FILE 'HCAPLUS'
       3235469 HIGH
         34625 MANNOSE
          2232 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L19         27 L7 AND (HIGH MANNOSE)

FILE 'NTIS'
        316508 HIGH
           112 MANNOSE
             6 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L20          0 L8 AND (HIGH MANNOSE)

FILE 'ESBIOBASE'
        376465 HIGH
          4745 MANNOSE
           569 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L21          3 L9 AND (HIGH MANNOSE)

FILE 'BIOTECHNO'
        290618 HIGH
          7018 MANNOSE
          1167 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L22         19 L10 AND (HIGH MANNOSE)

FILE 'WPIDS'
       1732738 HIGH
          2350 MANNOSE
            42 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L23          2 L11 AND (HIGH MANNOSE)

TOTAL FOR ALL FILES
L24        165 L12 AND (HIGH MANNOSE)

=> s l24 not 2002-2003/py
FILE 'MEDLINE'
        898624 2002-2003/PY
L25         49 L13 NOT 2002-2003/PY

FILE 'SCISEARCH'
       1628347 2002-2003/PY
L26          8 L14 NOT 2002-2003/PY

FILE 'LIFESCI'
        137782 2002-2003/PY
L27          9 L15 NOT 2002-2003/PY

FILE 'BIOTECHDS'
         36013 2002-2003/PY
L28          1 L16 NOT 2002-2003/PY

FILE 'BIOSIS'
        812724 2002-2003/PY
L29         16 L17 NOT 2002-2003/PY

FILE 'EMBASE'
        739028 2002-2003/PY
L30         25 L18 NOT 2002-2003/PY

FILE 'HCAPLUS'
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       1765463 2002-2003/PY
L31          23 L19 NOT 2002-2003/PY

FILE 'NTIS'
         17588 2002-2003/PY
L32           0 L20 NOT 2002-2003/PY

FILE 'ESBIOBASE'
        467486 2002-2003/PY
L33           2 L21 NOT 2002-2003/PY

FILE 'BIOTECHNO'
        203275 2002-2003/PY
L34          18 L22 NOT 2002-2003/PY

FILE 'WPIDS'
       1736742 2002-2003/PY
L35           0 L23 NOT 2002-2003/PY

TOTAL FOR ALL FILES
L36         151 L24 NOT 2002-2003/PY

=> dup rem l36
PROCESSING COMPLETED FOR L36
L37           73 DUP REM L36 (78 DUPLICATES REMOVED)

=> d tot

L37  ANSWER 1 OF 73      MEDLINE on STN
TI   Retention of glucose on oligosaccharide chains linked to the LH/hCG
     receptor prevents cell surface expression.
SO   BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2001 Mar 30) 282 (2)
     454-62.
     Journal code: 0372516. ISSN: 0006-291X.
AU   Bradbury F A; Menon K M
AN   2001332512      MEDLINE

L37  ANSWER 2 OF 73  SCISEARCH  COPYRIGHT 2003 THOMSON ISI on STN
TI   Lysosomal cysteine protease, cathepsin H, is targeted to lysosomes by the
     mannose 6-phosphate-independent system in rat hepatocytes
SO   BIOLOGICAL & PHARMACEUTICAL BULLETIN, (JUL 2000) Vol. 23, No. 7, pp.
     805-809.
     Publisher: PHARMACEUTICAL SOC JAPAN, 2-12-15-201 SHIBUYA, SHIBUYA-KU,
     TOKYO 150, JAPAN.
     ISSN: 0918-6158.
AU   Tanaka Y; Tanaka R; Himeno M (Reprint)
AN   2000:528021  SCISEARCH

L37  ANSWER 3 OF 73  HCAPLUS  COPYRIGHT 2003 ACS on STN
TI   Expression and Characterization of Glycosylated and Catalytically Active
     Recombinant Human .alpha.-Galactosidase A Produced in Pichia pastoris
SO   Protein Expression and Purification (2000), 20, 472-484
     CODEN: PEXPEJ; ISSN: 1046-5928
AU   Chen, Yingsi; Jin, Ming; Egborge, Tobore; Coppola, George; Andre, Jamie;
     Calhoun, David H.
AN   2000:818937  HCAPLUS
DN   134:146439

L37  ANSWER 4 OF 73      MEDLINE on STN
TI   Role of N-linked carbohydrate processing and calnexin in human hepatic
     lipase secretion.
SO   JOURNAL OF LIPID RESEARCH, (1999 Sep) 40 (9) 1627-35.
     Journal code: 0376606. ISSN: 0022-2275.
AU   Boedeker J C; Doolittle M; Santamarina-Fojo S; White A L
```

AN 1999414452 MEDLINE

L37 ANSWER 5 OF 73 MEDLINE on STN
TI Trypanosoma cruzi calreticulin is a lectin that binds monoglucosylated oligosaccharides but not protein moieties of glycoproteins.
SO MOLECULAR BIOLOGY OF THE CELL, (1999 May) 10 (5) 1381-94.
Journal code: 9201390. ISSN: 1059-1524.
AU Labriola C; Cazzulo J J; Parodi A J
AN 1999250150 MEDLINE

L37 ANSWER 6 OF 73 MEDLINE on STN DUPLICATE 1
TI Protein specific N-glycosylation of tyrosinase and tyrosinase-related protein-1 in B16 mouse melanoma cells.
SO BIOCHEMICAL JOURNAL, (1999 Dec 15) 344 Pt 3 659-65.
Journal code: 2984726R. ISSN: 0264-6021.
AU Negroiu G; Branza-Nichita N; Petrescu A J; Dwek R A; Petrescu S M.
AN 2000053879 MEDLINE

L37 ANSWER 7 OF 73 MEDLINE on STN DUPLICATE 2
TI Importance of glycosidases in mammalian glycoprotein biosynthesis.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1999 Dec 6) 1473 (1) 96-107. Ref: 107
Journal code: 0217513. ISSN: 0006-3002.
AU Herscovics A
AN 2000047733 MEDLINE

L37 ANSWER 8 OF 73 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Importance of glycosidases in mammalian glycoprotein biosynthesis
SO BIOCHIMICA ET BIOPHYSICA ACTA-GENERAL SUBJECTS, (6 DEC 1999) Vol. 1473, No. 1, pp. 96-107.
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
ISSN: 0304-4165.
AU Herscovics A (Reprint)
AN 1999:963112 SCISEARCH

L37 ANSWER 9 OF 73 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Structure and catalytic mechanism of crystalline .**alpha**.-**glucosidase** from Aspergillus niger
SO Oyo Toshitsu Kagaku (1998), 45(1), 71-79
CODEN: OTKAE3; ISSN: 1340-3494
AU Kimura, Atsuo
AN 1998:229337 HCAPLUS
DN 128:291830

L37 ANSWER 10 OF 73 MEDLINE on STN DUPLICATE 3
TI Homonojirimycin and N-methyl-homonojirimycin inhibit N-linked oligosaccharide processing.
SO GLYCOBIOLOGY, (1997 Mar) 7 (2) 297-304.
Journal code: 9104124. ISSN: 0959-6658.
AU Zeng Y; Pan Y T; Asano N; Nash R J; Elbein A D
AN 97280062 MEDLINE

L37 ANSWER 11 OF 73 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Primary structure and sugar chains of crystalline .**alpha**.-**glucosidase** from Aspergillus niger
SO Oyo Toshitsu Kagaku (1997), 44(2), 233-243
CODEN: OTKAE3; ISSN: 1340-3494
AU Kimura, Atsuo; Takayanagi, Tsutomu; Mori, Haruhide; Matsui, Hirokazu; Uozumi, Takeshi; Chiba, Seiya
AN 1997:499661 HCAPLUS
DN 127:146320

L37 ANSWER 12 OF 73 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Consequences of disrupting the gene that encodes **alpha**-

glucosidase II in the N-linked oligosaccharide biosynthesis pathway of Dictyostelium discoideum
SO DEVELOPMENTAL GENETICS, (20 NOV 1997) Vol. 21, No. 3, pp. 177-186.
Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012.
ISSN: 0192-253X.
AU Freeze H H (Reprint); Lammertz M; Iranfar N; Fuller D; Panneerselvam K; Loomis W F
AN 97:902261 SCISEARCH

L37 ANSWER 13 OF 73 MEDLINE on STN DUPLICATE 4
TI Glucoamylase mutants in the conserved active-site segment Trp170-Tyr175 located at a distance from the site of catalysis.
SO PROTEIN ENGINEERING, (1997 Jan) 10 (1) 81-7.
Journal code: 8801484. ISSN: 0269-2139.
AU Stoffer B B; Dupont C; Frandsen T P; Lehmbeck J; Svensson B
AN 97204166 MEDLINE

L37 ANSWER 14 OF 73 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Molecular structure of .**alpha**.-**glucosidase** from Aspergillus niger
SO Kagaku to Seibutsu (1996), 34(8), 497-499
CODEN: KASEAA; ISSN: 0453-073X
AU Kimura, Atsuo
AN 1996:503882 HCAPLUS
DN 125:135984

L37 ANSWER 15 OF 73 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI GLYCOSYLATION AND PHOSPHORYLATION OF LYSOSOMAL GLYCOSYLASPARAGINASE
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (01 APR 1996) Vol. 328, No. 1, pp. 73-77.
ISSN: 0003-9861.
AU PARK H; VETTESEDADEY M; ARONSON N N (Reprint)
AN 96:279648 SCISEARCH

L37 ANSWER 16 OF 73 MEDLINE on STN DUPLICATE 5
TI The **alpha-glucosidase** I inhibitor castanospermine alters endothelial cell glycosylation, prevents angiogenesis, and inhibits tumor growth.
SO CANCER RESEARCH, (1995 Jul 1) 55 (13) 2920-6.
Journal code: 2984705R. ISSN: 0008-5472.
AU Pili R; Chang J; Partis R A; Mueller R A; Chrest F J; Passaniti A
AN 95316869 MEDLINE

L37 ANSWER 17 OF 73 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Involvement of detergent-insoluble complexes in the intracellular transport of intestinal brush border enzymes.
SO Biochemistry, (1995) 34/5 (1596-1605).
ISSN: 0006-2960 CODEN: BICHAW
AU Danielsen E.M.
AN 95133128 EMBASE

L37 ANSWER 18 OF 73 MEDLINE on STN DUPLICATE 6
TI Glucose trimming and reglucosylation determine glycoprotein association with calnexin in the endoplasmic reticulum.
SO CELL, (1995 May 5) 81 (3) 425-33.
Journal code: 0413066. ISSN: 0092-8674.
AU Hebert D N; Foellmer B; Helenius A
AN 95254652 MEDLINE

L37 ANSWER 19 OF 73 MEDLINE on STN
TI Cloning and expression of glucosidase I from human hippocampus.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1995 Jul 15) 231 (2) 344-51.

Journal code: 0107600. ISSN: 0014-2956.
AU Kalz-Fuller B; Bieberich E; Bause E
AN 95361857 MEDLINE

L37 ANSWER 20 OF 73 MEDLINE on STN DUPLICATE 7
TI Dimeric assembly of enterocyte brush border enzymes.
SO BIOCHEMISTRY, (1994 Feb 15) 33 (6) 1599-605.
Journal code: 0370623. ISSN: 0006-2960.
AU Danielsen E M
AN 94146015 MEDLINE

L37 ANSWER 21 OF 73 EMBASE
on STN DUPLICATE 8
TI Microbial endoglycosidases for analyses of oligosaccharide chains in glycoproteins.
SO Journal of Biochemistry, (1994) 116/2 (229-235).
ISSN: 0021-924X CODEN: JOBIAO
AU Yamamoto K.
AN 94273039 EMBASE

L37 ANSWER 22 OF 73 HCAPLUS
TI Mannosidases of the Golgi complex
SO Guidebook to the Secretory Pathway (1994), 185. Editor(s): Rothblatt, Jonathan; Novick, Peter; Stevens, Tom H. Publisher: Oxford University Press, Oxford, UK.
CODEN: 64AJAT
AU Trimble, Robert B.; Moremen, Kelley W.; Herscovics, Annette
AN 1997:149943 HCAPLUS
DN 126:184124

L37 ANSWER 23 OF 73 MEDLINE on STN DUPLICATE 9
TI Novel structures of N-linked **high-mannose** type oligosaccharides containing alpha-D-galactofuranosyl linkages in Aspergillus niger alpha-D-glucosidase.
SO CARBOHYDRATE RESEARCH, (1994 Mar 18) 256 (1) 149-58.
Journal code: 0043535. ISSN: 0008-6215.
AU Takayanagi T; Kimura A; Chiba S; Ajisaka K
AN 94251775 MEDLINE

L37 ANSWER 24 OF 73 HCAPLUS
TI N-Glycan processing in the endoplasmic reticulum
SO Guidebook to the Secretory Pathway (1994), 100-101. Editor(s): Rothblatt, Jonathan; Novick, Peter; Stevens, Tom H. Publisher: Oxford University Press, Oxford, UK.
CODEN: 64AJAT
AU Trimble, Robert B.; Moremen, Kelly W.; Herscovics, Annette
AN 1997:146881 HCAPLUS
DN 126:182729

L37 ANSWER 25 OF 73 MEDLINE on STN
TI Inhibitors of N-linked oligosaccharide processing glucosidases interfere with oligodendrocyte differentiation in culture.
SO JOURNAL OF NEUROSCIENCE RESEARCH, (1994 Sep 1) 39 (1) 1-10.
Journal code: 7600111. ISSN: 0360-4012.
AU Bhat N R; Zhang P
AN 95106342 MEDLINE

L37 ANSWER 26 OF 73 MEDLINE on STN DUPLICATE 10
TI Role of endoplasmic reticular calcium in oligosaccharide processing of alpha 1-antitrypsin.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Jan 25) 268 (3) 2001-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kuznetsov G; Brostrom M A; Brostrom C O
AN 93131955 MEDLINE

L37 ANSWER 27 OF 73 MEDLINE on STN
TI Conserved structural features in glycoprotein processing glucosidase I from several tissues and species.
SO INDIAN JOURNAL OF BIOCHEMISTRY AND BIOPHYSICS, (1993 Dec) 30 (6) 333-40. Journal code: 0310774. ISSN: 0301-1208.
AU Pukazhenthi B S; Varma G M; Vijay I K
AN 94274231 MEDLINE

L37 ANSWER 28 OF 73 MEDLINE on STN
TI Identification of a novel mechanism for the removal of glucose residues from **high mannose**-type oligosaccharides.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1992 Oct 25) 267 (30) 21671-7. Journal code: 2985121R. ISSN: 0021-9258.
AU Suh K; Gabel C A; Bergmann J E
AN 93016119 MEDLINE

L37 ANSWER 29 OF 73 MEDLINE on STN
TI Glycoprotein processing is required for completion but not initiation of oligodendroglial differentiation from its bipotential progenitor cell.
SO DEVELOPMENTAL NEUROSCIENCE, (1992) 14 (3) 221-9. Journal code: 7809375. ISSN: 0378-5866.
AU Ishii S; Volpe J J
AN 93161961 MEDLINE

L37 ANSWER 30 OF 73 MEDLINE on STN
TI Glucosidase I, a transmembrane endoplasmic reticular glycoprotein with a luminal catalytic domain.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991 Sep 5) 266 (25) 16587-93. Journal code: 2985121R. ISSN: 0021-9258.
AU Shailubhai K; Pukazhenthi B S; Saxena E S; Varma G M; Vijay I K
AN 91358448 MEDLINE

L37 ANSWER 31 OF 73 MEDLINE on STN
TI A major proportion of N-glycoproteins are transiently glucosylated in the endoplasmic reticulum.
SO BIOCHEMISTRY, (1991 Mar 26) 30 (12) 3098-104. Journal code: 0370623. ISSN: 0006-2960.
AU Ganan S; Cazzulo J J; Parodi A J
AN 91175763 MEDLINE

L37 ANSWER 32 OF 73 MEDLINE on STN
TI Glycosidase inhibitors as antiviral and/or antitumor agents.
SO SEMINARS IN CELL BIOLOGY, (1991 Oct) 2 (5) 309-17. Ref: 48 Journal code: 9007587. ISSN: 1043-4682.
AU Elbein A D
AN 92256828 MEDLINE

L37 ANSWER 33 OF 73 MEDLINE on STN
TI Purification to homogeneity and properties of glucosidase II from mung bean seedlings and suspension-cultured soybean cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1990 Sep 25) 265 (27) 16271-9. Journal code: 2985121R. ISSN: 0021-9258.
AU Kaushal G P; Pastuszak I; Hatanaka K; Elbein A D
AN 90375488 MEDLINE

L37 ANSWER 34 OF 73 MEDLINE on STN
TI Secretion of rat hepatic lipase is blocked by inhibition of oligosaccharide processing at the stage of glucosidase I.
SO JOURNAL OF LIPID RESEARCH, (1990 Oct) 31 (10) 1883-93. Journal code: 0376606. ISSN: 0022-2275.
AU Verhoeven A J; Jansen H
AN 91178395 MEDLINE

L37 ANSWER 35 OF 73 MEDLINE on STN
TI High molecular weight soluble neutral maltase-glucoamylases in the intestine of the suckling rat.
SO BIOCHEMISTRY AND CELL BIOLOGY, (1990 Sep) 68 (9) 1103-11.
Journal code: 8606068. ISSN: 0829-8211.
AU Lee L; Forstner G
AN 91077071 MEDLINE

L37 ANSWER 36 OF 73 MEDLINE on STN
TI Studies on hormonal modulation of asparagine-linked glycoprotein biosynthesis in explant cultures of rat mammary gland.
SO INDIAN JOURNAL OF BIOCHEMISTRY AND BIOPHYSICS, (1990 Dec) 27 (6) 425-9.
Journal code: 0310774. ISSN: 0301-1208.
AU Shailubhai K; Saxena E S; Balapure A K; Vijay I K
AN 91340384 MEDLINE

L37 ANSWER 37 OF 73 MEDLINE on STN DUPLICATE 11
TI Cell type-specific post-Golgi apparatus localization of a "resident" endoplasmic reticulum glycoprotein, glucosidase II.
SO JOURNAL OF CELL BIOLOGY, (1990 Feb) 110 (2) 309-18.
Journal code: 0375356. ISSN: 0021-9525.
AU Brada D; Kerjaschki D; Roth J
AN 90130621 MEDLINE

L37 ANSWER 38 OF 73 MEDLINE on STN
TI The effect of castanospermine on the synthesis of synaptic glycoproteins by rat brain slices.
SO NEUROCHEMICAL RESEARCH, (1990 Mar) 15 (3) 257-63.
Journal code: 7613461. ISSN: 0364-3190.
AU Howes S; Bissoon N; Ito M; Beesley P W; Gurd J W
AN 90310156 MEDLINE

L37 ANSWER 39 OF 73 LIFESCI COPYRIGHT 2003 CSA on STN
TI Posttranslational regulation of sucrase-isomaltase expression in intestinal crypt and villus cells.
SO J. BIOL. CHEM., (1989) vol. 264, no. 33, pp. 20000-11.
AU Beaulieu, J.-F.; Nichols, B.; Quaroni, A.
AN 89:89731 LIFESCI

L37 ANSWER 40 OF 73 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Glucosylation of glycoproteins by mammalian, plant, fungal, and trypanosomatid protozoa microsomal membranes.
SO Biochemistry, (1989) 28/20 (8108-8116).
ISSN: 0006-2960 CODEN: BICHAW
AU Trombetta S.E.; Bosch M.; Parodi A.J.
AN 89252936 EMBASE

L37 ANSWER 41 OF 73 MEDLINE on STN DUPLICATE 12
TI Effect of the **alpha-glucosidase** inhibitor N-hydroxyethyl-1-deoxynojirimycin (Bay m 1099) on the biosynthesis of liver secretory glycoproteins.
SO BIOCHEMICAL PHARMACOLOGY, (1989 Aug 1) 38 (15) 2479-86.
Journal code: 0101032. ISSN: 0006-2952.
AU Ludolph D; Gross V; Katz N R; Giffhorn-Katz S; Kreisel W; Heinrich P C; Gerok W
AN 89334916 MEDLINE

L37 ANSWER 42 OF 73 MEDLINE on STN
TI Purification and characterization of trimming glucosidase I from pig liver.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1989 Aug 15) 183 (3) 661-9.
Journal code: 0107600. ISSN: 0014-2956.
AU Bause E; Schweden J; Gross A; Orthen B

AN 89377834 MEDLINE

L37 ANSWER 43 OF 73 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
TI Purification and characterization of beta-mannosidase from human placenta;
by chromatography, enzyme characterization
SO J.Biochem.; (1989) 106, 2, 331-35
CODEN: JOBIAO
AU Iwasaki Y; Tsuji A; Omura K; *Suzuki Y
AN 1989-12251 BIOTECHDS

L37 ANSWER 44 OF 73 MEDLINE on STN DUPLICATE 13
TI Biosynthesis of high molecular weight polylactosamine-type glycopeptides in rat Zajdela hepatoma ascites cells.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1989 May 10) 1011 (2-3) 110-6.
Journal code: 0217513. ISSN: 0006-3002.
AU Saunier B; Goulut C; Nato F; Bourrillon R
AN 89229209 MEDLINE

L37 ANSWER 45 OF 73 MEDLINE on STN DUPLICATE 14
TI A simple and rapid microplate assay for glycoprotein-processing glycosidases.
SO ANALYTICAL BIOCHEMISTRY, (1989 Aug 15) 181 (1) 109-12.
Journal code: 0370535. ISSN: 0003-2697.
AU Kang M S; Zwolshen J H; Harry B S; Sunkara P S
AN 90054296 MEDLINE

L37 ANSWER 46 OF 73 MEDLINE on STN DUPLICATE 15
TI Structure, biosynthesis, and glycosylation of human small intestinal maltase-glucoamylase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1988 Dec 25) 263 (36) 19709-17.
Journal code: 2985121R. ISSN: 0021-9258.
AU Naim H Y; Sterchi E E; Lentze M J
AN 89066802 MEDLINE

L37 ANSWER 47 OF 73 LIFESCI COPYRIGHT 2003 CSA on STN
TI Biosynthesis of the human sucrase-isomaltase complex. Differential O-glycosylation of the sucrase subunit correlates with its position within the enzyme complex.
SO J. BIOL. CHEM., (1988) vol. 263, no. 15, pp. 7242-7253.
AU Naim, H.Y.; Sterchi, E.E.; Lentze, M.J.
AN 88:56766 LIFESCI

L37 ANSWER 48 OF 73 LIFESCI COPYRIGHT 2003 CSA on STN
TI Sucrase-isomaltase deficiency in humans. Different mutations disrupt intracellular transport, processing, and function of an intestinal brush border enzyme.
SO J. CLIN. INVEST., (1988) vol. 82, no. 2, pp. 667-679.
AU Naim, H.Y.; Roth, J.; Sterchi, E.E.; Lentze, M.; Milla, P.; Schmitz, J.; Hauri, H.-P.
AN 88:67922 LIFESCI

L37 ANSWER 49 OF 73 LIFESCI COPYRIGHT 2003 CSA on STN
TI Monensin inhibits the expression of sucrase-isomaltase in Caco-2 cells at the mRNA level.
SO FEBS LETT., (1988) vol. 235, no. 1-2, pp. 125-128.
AU Chantret, I.; Trugnan, G.; Dussaulx, E.; Zweibaum, A.; Rousset, M.
AN 88:64575 LIFESCI

L37 ANSWER 50 OF 73 MEDLINE on STN DUPLICATE 16
TI Receptor-mediated uptake of acid **alpha-glucosidase** corrects lysosomal glycogen storage in cultured skeletal muscle.
SO PEDIATRIC RESEARCH, (1988 Jul) 24 (1) 90-4.
Journal code: 0100714. ISSN: 0031-3998.

AU Van der Ploeg A T; Loonen M C; Bolhuis P A; Busch H M; Reuser A J; Galjaard H
AN 88319846 MEDLINE

L37 ANSWER 51 OF 73 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 17
TI YOLK HYDROLASE ACTIVITIES ASSOCIATED WITH POLYPEPTIDE AND OLIGOSACCHARIDE PROCESSING OF BLATTELLA-GERMANICA VITELLIN.
SO ARCH INSECT BIOCHEM PHYSIOL, (1988) 8 (1), 39-58.
CODEN: AIBPEA. ISSN: 0739-4462.
AU PURCELL J P; KUNKEL J G; NORDIN J H
AN 1988:483081 BIOSIS

L37 ANSWER 52 OF 73 MEDLINE on STN
TI Glucosidase II, a protein of the endoplasmic reticulum with **high mannose** oligosaccharide chains and a rapid turnover.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1987 Mar 15) 262 (8) 3620-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Strous G J; Van Kerkhof P; Brok R; Roth J; Brada D
AN 87137658 MEDLINE

L37 ANSWER 53 OF 73 MEDLINE on STN
TI Purification and characterization of glucosidase II involved in N-linked glycoprotein processing in bovine mammary gland.
SO BIOCHEMICAL JOURNAL, (1987 Nov 1) 247 (3) 563-70.
Journal code: 2984726R. ISSN: 0264-6021.
AU Saxena S; Shailubhai K; Dong-Yu B; Vijay I K
AN 88106388 MEDLINE

L37 ANSWER 54 OF 73 MEDLINE on STN
TI Characterization of calf liver glucosidase I and its inhibition by basic sugar analogs.
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1986 Jul) 248 (1) 335-40.
Journal code: 0372430. ISSN: 0003-9861.
AU Schweden J; Borgmann C; Legler G; Bause E
AN 86267773 MEDLINE

L37 ANSWER 55 OF 73 MEDLINE on STN DUPLICATE 18
TI Carbohydrates of lysosomal enzymes secreted by Tetrahymena pyriformis.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1985 Nov 15) 260 (26) 13941-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Taniguchi T; Mizuochi T; Banno Y; Nozawa Y; Kobata A
AN 86033869 MEDLINE

L37 ANSWER 56 OF 73 MEDLINE on STN
TI Transport to cell surface of intestinal sucrase-isomaltase is blocked in the Golgi apparatus in a patient with congenital sucrase-isomaltase deficiency.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1985 Jul) 82 (13) 4423-7.
Journal code: 7505876. ISSN: 0027-8424.
AU Hauri H P; Roth J; Sterchi E E; Lentze M J
AN 85242696 MEDLINE

L37 ANSWER 57 OF 73 MEDLINE on STN DUPLICATE 19
TI Enzymatic activity of "**high-mannose**" glycosylated forms of intestinal microvillar hydrolases.
SO JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION, (1985 Dec) 4 (6) 980-3.
Journal code: 8211545. ISSN: 0277-2116.
AU Sjostrom H; Noren O; Danielsen E M
AN 86062147 MEDLINE

L37 ANSWER 58 OF 73 MEDLINE on STN DUPLICATE 20

TI Glucosidase II, a glycoprotein of the endoplasmic reticulum membrane. Proteolytic cleavage into enzymatically active fragments.
SO BIOCHEMISTRY, (1985 Jan 29) 24 (3) 800-5.
Journal code: 0370623. ISSN: 0006-2960.
AU Hino Y; Rothman J E
AN 85199816 MEDLINE

L37 ANSWER 59 OF 73 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 21
TI The effect of castanospermine on the oligosaccharide structures of glycoproteins from lymphoma cell lines.
SO Biochemical Journal, (1985) 227/3 (795-804).
CODEN: BIJOAK
AU Palamarczyk G.; Elbein A.D.
AN 85194656 EMBASE

L37 ANSWER 60 OF 73 MEDLINE on STN
TI Castanospermine inhibits glucosidase I and glycoprotein secretion in human hepatoma cells.
SO BIOCHEMICAL JOURNAL, (1985 Dec 15) 232 (3) 759-66.
Journal code: 2984726R. ISSN: 0264-6021.
AU Sasak V W; Ordovas J M; Elbein A D; Berninger R W
AN 86130399 MEDLINE

L37 ANSWER 61 OF 73 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 22
TI ABNORMAL PROCESSING OF THE MODIFIED OLIGOSACCHARIDE SIDE CHAINS OF PHYTOHEMAGGLUTININ IN THE PRESENCE OF SWAINSONINE AND DEOXYNOJIRIMYCIN.
SO PLANT PHYSIOL (BETHESDA), (1985) 78 (4), 704-709.
CODEN: PLPHAY. ISSN: 0032-0889.
AU CHRISPEELS M J; VITALE A
AN 1986:117044 BIOSIS

L37 ANSWER 62 OF 73 MEDLINE on STN
TI The effects of inhibitors of glucosidase I on the formation of Sindbis virus.
SO VIRUS RESEARCH, (1985 Mar) 2 (2) 139-49.
Journal code: 8410979. ISSN: 0168-1702.
AU Schlesinger S; Koyama A H; Malfer C; Gee S L; Schlesinger M J
AN 85194816 MEDLINE

L37 ANSWER 63 OF 73 MEDLINE on STN DUPLICATE 23
TI The molecular basis for charge heterogeneity in human acid **alpha -glucosidase**.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1985 May 20) 829 (1) 44-50.
Journal code: 0217513. ISSN: 0006-3002.
AU Henkel R D; Chambers J P; Williams J C
AN 85199952 MEDLINE

L37 ANSWER 64 OF 73 MEDLINE on STN DUPLICATE 24
TI Biosynthesis of intestinal microvillar proteins. Further characterization of the intracellular processing and transport.
SO FEBS LETTERS, (1984 Jan 23) 166 (1) 28-32.
Journal code: 0155157. ISSN: 0014-5793.
AU Danielsen E M; Cowell G M
AN 84108920 MEDLINE

L37 ANSWER 65 OF 73 MEDLINE on STN DUPLICATE 25
TI On the role of oligosaccharide trimming in the maturation of Sindbis and influenza virus.
SO ARCHIVES OF VIROLOGY, (1984) 81 (1-2) 25-39.
Journal code: 7506870. ISSN: 0304-8608.
AU Datema R; Romero P A; Rott R; Schwarz R T
AN 84256079 MEDLINE

L37 ANSWER 66 OF 73 MEDLINE on STN
TI The mod A mutant of Dictyostelium discoideum is missing the alpha 1,3-glucosidase involved in asparagine-linked oligosaccharide processing.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1983 Dec 25) 258 (24) 14880-4.
Journal code: 2985121R. ISSN: 0021-9258.
AU Freeze H H; Yeh R; Miller A L; Kornfeld S
AN 84087880 MEDLINE

L37 ANSWER 67 OF 73 MEDLINE on STN DUPLICATE 26
TI 1-deoxynojirimycin impairs oligosaccharide processing of alpha 1-proteinase inhibitor and inhibits its secretion in primary cultures of rat hepatocytes.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1983 Oct 25) 258 (20) 12203-9.
Journal code: 2985121R. ISSN: 0021-9258.
AU Gross V; Andus T; Tran-Thi T A; Schwarz R T; Decker K; Heinrich P C
AN 84032392 MEDLINE

L37 ANSWER 68 OF 73 MEDLINE on STN DUPLICATE 27
TI Biosynthesis of intestinal microvillar proteins. Pulse-chase labelling studies on maltase-glucoamylase, aminopeptidase A and dipeptidyl peptidase IV.
SO BIOCHEMICAL JOURNAL, (1983 Feb 15) 210 (2) 389-93.
Journal code: 2984726R. ISSN: 0264-6021.
AU Danielsen E M; Sjostrom H; Noren O
AN 83230712 MEDLINE

L37 ANSWER 69 OF 73 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 28
TI Biosynthesis of intestinal microvillar proteins. Role of the Golgi complex and microtubules.
SO Biochemical Journal, (1983) 216/1 (37-42).
CODEN: BIJOAK
AU Danielsen E.M.; Cowell G.M.; Poulsen S.S.
AN 83250332 EMBASE

L37 ANSWER 70 OF 73 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 29
TI INHIBITION OF N LINKED COMPLEX OLIGO SACCHARIDE FORMATION BY 1 DEOXY NOJIRIMYCIN AN INHIBITOR OF PROCESSING GLUCOSIDASES.
SO J BIOL CHEM, (1982) 257 (23), 14155-14161.
CODEN: JBCHA3. ISSN: 0021-9258.
AU SAUNIER B; KILKER R D JR; TKACZ J S; QUARONI A; HERSCOVICS A
AN 1984:219558 BIOSIS

L37 ANSWER 71 OF 73 MEDLINE on STN
TI A lectin-resistant mouse lymphoma cell line is deficient in glucosidase II, a glycoprotein-processing enzyme.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1982 Sep 10) 257 (17) 10357-63.
Journal code: 2985121R. ISSN: 0021-9258.
AU Reitman M L; Trowbridge I S; Kornfeld S
AN 82265696 MEDLINE

L37 ANSWER 72 OF 73 MEDLINE on STN DUPLICATE 30
TI Inhibition of formation of complex oligosaccharides by the glucosidase inhibitor bromoconduritol.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1982 Nov) 79 (22) 6787-91.
Journal code: 7505876. ISSN: 0027-8424.
AU Datema R; Romero P A; Legler G; Schwarz R T
AN 83091045 MEDLINE

L37 ANSWER 73 OF 73 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Partial purification from Saccharomyces cerevisiae of a soluble

glucosidase which removes the terminal glucose from the oligosaccharide Glc3Man9GlcNAc2
SO Journal of Biological Chemistry (1981), 256(10), 5299-303
CODEN: JBCHA3; ISSN: 0021-9258
AU Kilker, Richard D., Jr.; Saunier, Brigitte; Tkacz, Jan S.; Herscovics, Annette
AN 1981:456938 HCAPLUS
DN 95:56938

=> d ab 3,10,19,50,63

L37 ANSWER 3 OF 73 HCAPLUS COPYRIGHT 2003 ACS on STN
AB Fabry disease is an X-linked inborn error of glycolipid metab. caused by deficiency of the lysosomal enzyme .alpha.-galactosidase A. This enzyme is responsible for the hydrolysis of terminal .alpha.-galactoside linkages in various glycolipids. An improved method of prodn. of recombinant .alpha.-galactosidase A for use in humans is needed in order to develop new approaches for enzyme therapy. Human .alpha.-galactosidase A for use in enzyme therapy has previously been obtained from human sources and from recombinant clones derived from human cells, CHO cells, and insect cells. In this report we describe the construction of clones of the methylotrophic yeast Pichia pastoris that produce recombinant human .alpha.-galactosidase A. Recombinant human .alpha.-galactosidase A is secreted by these Pichia clones and the level of prodn. is more than 30-fold greater than that of previously used methods. Prodn. was optimized using variations in temp., pH, cDNA copy no., and other variables using shake flasks and a bioreactor. Expression of the human enzyme increased with increasing cDNA copy no. at 25.degree.C, but not at the std. growth temp. of 30.degree.C. The recombinant .alpha.-galactosidase A was purified to homogeneity using ion exchange (POROS 20 CM, POROS 20 HQ) and hydrophobic (Toso-ether, Toso-butyl) chromatog. with a BioCAD HPLC Workstation. Purified recombinant .alpha.-galactosidase A was taken up by fibroblasts derived from Fabry disease patients and normal enzyme levels could be restored under these conditions. Anal. of the carbohydrate present on the recombinant enzyme indicated the predominant presence of N-linked **high-mannose** structures rather than complex carbohydrates. (c) 2000 Academic Press.

L37 ANSWER 10 OF 73 MEDLINE on STN DUPLICATE 3
AB Homonojirimycin (HNJ) and N-methylhomonojirimycin (MHNJ) were tested as inhibitors of the purified glycoprotein processing enzymes, glucosidase I and glucosidase II. MHNJ was a reasonably good inhibitor of glucosidase I (Ki = 1 x 10(-6) M) and was about three times as effective on this enzyme as was HNJ. On the other hand, HNJ inhibited glucosidase II with a Ki of about 1 x 10(-6) M, whereas MHNJ was three times less effective (Ki = 3 x 10(-5) M). However, the butyl derivative of HNJ had very low activity toward these two processing glucosidases. HNJ and its methyl derivative were also tested in vivo using influenza virus-infected MDCK cells, and measuring the inhibition of N-linked oligosaccharide processing of the viral envelope glycoproteins. With 100 micrograms/ml of MHNJ in the medium, essentially all of the N-linked oligosaccharide chains of the virus were of the "**high-mannose**" type with the major structure being characterized as Glc3Man9(GlcNAc)2. Similar results were obtained with HNJ although this compound was less effective in vivo as well as in vitro. These results are in keeping with these inhibitors being effective at the glucosidase I step. Both inhibitors were also tested in MDCK cell cultures to determine whether they affected the in vivo synthesis of proteins, or of lipid-linked saccharides. In contrast to deoxynojirimycin, which has been reported to inhibit the formation of lipid-linked saccharides, no effects were seen on either the incorporation of mannose into lipid-linked saccharides or the incorporation of leucine into protein.

L37 ANSWER 19 OF 73 MEDLINE on STN
AB Glucosidase I, the first enzyme in the N-linked oligosaccharide processing pathway, cleaves the distal alpha 1,2-linked glucose residue from the Glc3-Man9-GlcNAc2 oligosaccharide precursor highly specifically. A human hippocampus cDNA library was screened against oligonucleotide probes, generated by PCR using primers derived from the amino acid sequences of tryptic peptides of pig liver glucosidase I. Two independent lambda clones were isolated which allowed the construction of a full-length glucosidase I cDNA of 2881 bp. This cDNA construct encodes, in a single open reading frame, a polypeptide of 834 amino acids corresponding to a molecular mass of 92 kDa. The 92-kDa protein contains a single N-glycosylation site of the Asn-Xaa-Thr/Ser type at Asn655, as well as a strongly hydrophobic sequence close to its N-terminus (amino acids 38-58) which, most likely, functions as a transmembrane anchor. The amino acid sequences of all tryptic peptides of the pig liver enzyme were found, with little deviation, within the coding sequence. This demonstrates the authenticity of the cDNA construct and the close evolutionary relationship between the enzymes from human hippocampus and pig liver. In contrast, the nucleotide and amino acid sequence revealed no homology with other processing enzymes cloned so far. Transfection of COS 1 cells with the glucosidase I cDNA construct resulted in overexpression (about fourfold) of enzymic activity, which was inhibited strongly by 1-deoxynojirimycin or N,N-dimethyl-deoxynojirimycin. The expressed enzyme, with a molecular mass of 95 kDa, is degraded by endoglycosidase H to a 93-kDa form, indicating that it carries a **high-mannose** oligosaccharide chain at Asn655. The presence of this glycan is in line with the localization of glucosidase I in the lumen of the endoplasmic reticulum, shown by immunofluorescence microscopy. The hydrophobicity profile as well as the removal by trypsin of an approximately 4-kDa polypeptide from the membrane-associated glucosidase I in intact microsomal structures, supports the view that the enzyme is a type-II transmembrane glycoprotein, which contains a short cytosolic tail of approximately 37 amino acids, followed by a single transmembrane domain and a large C-terminal catalytic domain located on the luminal side of the endoplasmic reticulum membrane.

L37 ANSWER 50 OF 73 MEDLINE on STN DUPLICATE 16
AB Attempts at treatment of glycogenosis type II and other lysosomal storage disorders by enzyme replacement have been reported. Parenteral enzyme administration has been ineffectual. Treatment by bone marrow transplantation is currently under investigation. We have used cultured skeletal muscle cells from a patient with infantile glycogenosis type II to study fundamental aspects of enzyme replacement therapy. Efficient uptake of acid **alpha-glucosidase** was achieved by using the mannose-6-phosphate receptor on the cell surface as a target for an enzyme precursor with phosphorylated **high-mannose** types carbohydrate chains purified from human urine. We found that the enzyme was channeled to the lysosomes and converted to mature acid **alpha-glucosidase**. Glycogen storage was reversed. The results are discussed in relation to treatment of glycogenosis type II.

L37 ANSWER 63 OF 73 MEDLINE on STN DUPLICATE 23
AB The molecular basis for charge heterogeneity in human hepatic **alpha-glucosidase** (alpha-D-glucoside glucohydrolase, EC 3.2.1.20) was determined by analysis of the carbohydrate and polypeptide components of the enzyme. Only small remnants of **high mannose** chains that contained neither sialic acid nor mannose 6-phosphate were detected in the carbohydrate structure. Four enzymatically active forms of **alpha-glucosidase** separated by chromatofocusing were analyzed by sodium dodecyl sulfate-polyacrylamide gel electrophoresis and were found to contain different polypeptides. The absence of charged residues in oligosaccharide chains and variability in the polypeptide subunits of the charge forms of hepatic **alpha-glucosidase** suggest that

charge heterogeneity results from differences in the protein structure of the charge forms. The pattern of differences in the polypeptide subunits suggests that the charge forms for hepatic **alpha-glucosidase** may be the product of proteolysis.

```
=> s lysosom? and (high mannose)

FILE 'MEDLINE'
         38027 LYSOSOM?
       1147840 HIGH
         16633 MANNOSE
          1894 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L38         182 LYSOSOM? AND (HIGH MANNOSE)

FILE 'SCISEARCH'
         21942 LYSOSOM?
       1662292 HIGH
         12311 MANNOSE
          1232 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L39         101 LYSOSOM? AND (HIGH MANNOSE)

FILE 'LIFESCI'
          6942 LYSOSOM?
        319327 "HIGH"
          5538 "MANNOSE"
           619 HIGH MANNOSE
                 ("HIGH"(W)"MANNOSE")
L40          32 LYSOSOM? AND (HIGH MANNOSE)

FILE 'BIOTECHDS'
           422 LYSOSOM?
         59408 HIGH
          1594 MANNOSE
           124 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L41            3 LYSOSOM? AND (HIGH MANNOSE)

FILE 'BIOSIS'
         37524 LYSOSOM?
       1288397 HIGH
         19310 MANNOSE
          2009 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L42         175 LYSOSOM? AND (HIGH MANNOSE)

FILE 'EMBASE'
         29348 LYSOSOM?
       1110952 "HIGH"
         12998 "MANNOSE"
          1552 HIGH MANNOSE
                 ("HIGH"(W)"MANNOSE")
L43         132 LYSOSOM? AND (HIGH MANNOSE)

FILE 'HCAPLUS'
         32919 LYSOSOM?
       3235469 HIGH
         34625 MANNOSE
          2232 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L44         188 LYSOSOM? AND (HIGH MANNOSE)

FILE 'NTIS'
```

```
           279 LYSOSOM?
        316508 HIGH
           112 MANNOSE
             6 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L45          1 LYSOSOM? AND (HIGH MANNOSE)

FILE 'ESBIOBASE'
          7785 LYSOSOM?
        376465 HIGH
          4745 MANNOSE
           569 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L46         48 LYSOSOM? AND (HIGH MANNOSE)

FILE 'BIOTECHNO'
          8463 LYSOSOM?
        290618 HIGH
          7018 MANNOSE
          1167 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L47         99 LYSOSOM? AND (HIGH MANNOSE)

FILE 'WPIDS'
           521 LYSOSOM?
       1732738 HIGH
          2350 MANNOSE
            42 HIGH MANNOSE
                 (HIGH(W)MANNOSE)
L48          3 LYSOSOM? AND (HIGH MANNOSE)

TOTAL FOR ALL FILES
L49        964 LYSOSOM? AND (HIGH MANNOSE)

=> s l49 and (gaa or acid glucosidase#)
FILE 'MEDLINE'
           733 GAA
       1199200 ACID
         10022 GLUCOSIDASE#
            19 ACID GLUCOSIDASE#
                 (ACID(W)GLUCOSIDASE#)
L50          0 L38 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'SCISEARCH'
           778 GAA
        937471 ACID
          7752 GLUCOSIDASE#
             9 ACID GLUCOSIDASE#
                 (ACID(W)GLUCOSIDASE#)
L51          0 L39 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'LIFESCI'
           336 GAA
        264242 "ACID"
          3858 GLUCOSIDASE#
             0 ACID GLUCOSIDASE#
                 ("ACID"(W)GLUCOSIDASE#)
L52          0 L40 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'BIOTECHDS'
           155 GAA
        104314 ACID
          3042 GLUCOSIDASE#
             0 ACID GLUCOSIDASE#
```

```
                (ACID(W)GLUCOSIDASE#)
L53          0 L41 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'BIOSIS'
           804 GAA
       1136107 ACID
         10653 GLUCOSIDASE#
            17 ACID GLUCOSIDASE#
                (ACID(W)GLUCOSIDASE#)
L54          0 L42 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'EMBASE'
           612 GAA
       1167607 "ACID"
          8954 GLUCOSIDASE#
            13 ACID GLUCOSIDASE#
                ("ACID"(W)GLUCOSIDASE#)
L55          0 L43 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'HCAPLUS'
          1094 GAA
       3722508 ACID
         15609 GLUCOSIDASE#
           122 ACID GLUCOSIDASE#
                (ACID(W)GLUCOSIDASE#)
L56          0 L44 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'NTIS'
           158 GAA
         43058 ACID
            91 GLUCOSIDASE#
             0 ACID GLUCOSIDASE#
                (ACID(W)GLUCOSIDASE#)
L57          0 L45 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'ESBIOBASE'
           424 GAA
        262028 ACID
          5065 GLUCOSIDASE#
             6 ACID GLUCOSIDASE#
                (ACID(W)GLUCOSIDASE#)
L58          0 L46 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'BIOTECHNO'
           437 GAA
        338899 ACID
          4163 GLUCOSIDASE#
             0 ACID GLUCOSIDASE#
                (ACID(W)GLUCOSIDASE#)
L59          0 L47 AND (GAA OR ACID GLUCOSIDASE#)

FILE 'WPIDS'
           185 GAA
        802462 ACID
          1371 GLUCOSIDASE#
             0 ACID GLUCOSIDASE#
                (ACID(W)GLUCOSIDASE#)
L60          0 L48 AND (GAA OR ACID GLUCOSIDASE#)

TOTAL FOR ALL FILES
L61          0 L49 AND (GAA OR ACID GLUCOSIDASE#)

=> s 149 and glucosidase#
FILE 'MEDLINE'
```

```
         10022 GLUCOSIDASE#
L62         16 L38 AND GLUCOSIDASE#

FILE 'SCISEARCH'
          7752 GLUCOSIDASE#
L63          7 L39 AND GLUCOSIDASE#

FILE 'LIFESCI'
          3858 GLUCOSIDASE#
L64          1 L40 AND GLUCOSIDASE#

FILE 'BIOTECHDS'
          3042 GLUCOSIDASE#
L65          1 L41 AND GLUCOSIDASE#

FILE 'BIOSIS'
         10653 GLUCOSIDASE#
L66         11 L42 AND GLUCOSIDASE#

FILE 'EMBASE'
          8954 GLUCOSIDASE#
L67          8 L43 AND GLUCOSIDASE#

FILE 'HCAPLUS'
         15609 GLUCOSIDASE#
L68         13 L44 AND GLUCOSIDASE#

FILE 'NTIS'
            91 GLUCOSIDASE#
L69          0 L45 AND GLUCOSIDASE#

FILE 'ESBIOBASE'
          5065 GLUCOSIDASE#
L70         10 L46 AND GLUCOSIDASE#

FILE 'BIOTECHNO'
          4163 GLUCOSIDASE#
L71          7 L47 AND GLUCOSIDASE#

FILE 'WPIDS'
          1371 GLUCOSIDASE#
L72          2 L48 AND GLUCOSIDASE#

TOTAL FOR ALL FILES
L73         76 L49 AND GLUCOSIDASE#

=> dup rem l73
PROCESSING COMPLETED FOR L73
L74          34 DUP REM L73 (42 DUPLICATES REMOVED)

=> d tot

L74  ANSWER 1 OF 34  HCAPLUS  COPYRIGHT 2003 ACS on STN
TI   Methods of producing high mannose glycoproteins in
     complex carbohydrate deficient cells
SO   U.S. Pat. Appl. Publ., 46 pp.
     CODEN: USXXCO
IN   Canfield, William M.
AN   2003:511963  HCAPLUS
DN   139:84070
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ----------------  ----  --------      ---------------  --------
PI   US 2003124652     A1    20030703      US 2001-23889    20011221
     WO 2003057710     A2    20030717      WO 2002-US37618  20021219
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

L74 ANSWER 2 OF 34 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN

TI Producing recombinant proteins e.g., glucocerebrosidase with **high -mannose** carbohydrate structure, involves continuously culturing cells of Pichia pastoris that comprise DNA molecule encoding protein of interest;
for use in **lysosomal** acid lipase, alpha-glycosidase, alpha-L-iduronidase, alpha-galactosidase, iduronate sulfatase, galactosamine-6-sulfatase, beta-galactosidase, arylsulfatase and recombinant protein preparation

AU WAN N; HOPPE H; GOODRICK J C; SCHILLING B M

AN 2002-18508 BIOTECHDS

PI WO 2002040686 23 May 2002

L74 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2

TI Use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in production of highly phosphorylated **lysosomal** hydrolases useful in treatment of **lysosomal** storage diseases

SO PCT Int. Appl., 91 pp.
CODEN: PIXXD2

IN Canfield, William M.

AN 2001:208390 HCAPLUS

DN 134:248843

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001019955	A2	20010322	WO 2000-US21970	20000914
WO 2001019955	A3	20011004		

PI

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6534300	B1	20030318	US 2000-635872	20000810
US 6537785	B1	20030325	US 2000-636077	20000810
AU 2000073303	A5	20010417	AU 2000-73303	20000914
BR 2000014514	A	20020723	BR 2000-14514	20000914
EP 1224266	A2	20020724	EP 2000-961335	20000914

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003509043	T2	20030311	JP 2001-523727	20000914
US 2002025550	A1	20020228	US 2001-895072	20010702
US 2002150981	A1	20021017	US 2001-986552	20011109
US 2003148460	A1	20030807	US 2002-306686	20021129

L74 ANSWER 4 OF 34 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN

TI **Lysosomal** cysteine protease, cathepsin H, is targeted to **lysosomes** by the mannose 6-phosphate-independent system in rat hepatocytes

SO BIOLOGICAL & PHARMACEUTICAL BULLETIN, (JUL 2000) Vol. 23, No. 7, pp.

805-809.
Publisher: PHARMACEUTICAL SOC JAPAN, 2-12-15-201 SHIBUYA, SHIBUYA-KU, TOKYO 150, JAPAN.
ISSN: 0918-6158.
AU Tanaka Y; Tanaka R; Himeno M (Reprint)
AN 2000:528021 SCISEARCH

L74 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Expression and Characterization of Glycosylated and Catalytically Active Recombinant Human .alpha.-Galactosidase A Produced in Pichia pastoris
SO Protein Expression and Purification (2000), 20, 472-484
CODEN: PEXPEJ; ISSN: 1046-5928
AU Chen, Yingsi; Jin, Ming; Egborge, Tobore; Coppola, George; Andre, Jamie; Calhoun, David H.
AN 2000:818937 HCAPLUS
DN 134:146439

L74 ANSWER 6 OF 34 MEDLINE on STN DUPLICATE 3
TI Glucose persistence on **high-mannose** oligosaccharides selectively inhibits the macroautophagic sequestration of N-linked glycoproteins.
SO BIOCHEMICAL JOURNAL, (2000 Feb 1) 345 Pt 3 459-66.
Journal code: 2984726R. ISSN: 0264-6021.
AU Ogier-Denis E; Bauvy C; Cluzeaud F; Vandewalle A; Codogno P
AN 2000115078 MEDLINE

L74 ANSWER 7 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 2000064190 ESBIOBASE
TI Human .alpha.-N-acetylgalactosaminidase: Site occupancy and structure of N-linked oligosaccharides
AU Ohta M.; Ohnishi T.; Ioannou Y.A.; Hodgson M.E.; Matsuura F.; Desnick R.J.
CS R.J. Desnick, Department of Human Genetics, Mount Sinai School of Medicine, Fifth Avenue and 100th Street, New York, NY 10029-6574, United States.
SO Glycobiology, (2000), 10/3 (251-261), 47 reference(s)
CODEN: GLYCE3 ISSN: 0959-6658
DT Journal; Article
CY United Kingdom
LA English
SL English

L74 ANSWER 8 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1999204833 ESBIOBASE
TI Role of N-linked carbohydrate processing and calnexin in human hepatic lipase secretion
AU Boedeker J.C.; Doolittle M.; Santamarina-Fojo S.; White A.L.
CS J.C. Boedeker, Center for Human Nutrition, University of Texas SW Medical Ctr., Dallas, TX 75235, United States.
SO Journal of Lipid Research, (1999), 40/9 (1627-1635), 45 reference(s)
CODEN: JLPRAW ISSN: 0022-2275
DT Journal; Article
CY United States
LA English
SL English

L74 ANSWER 9 OF 34 MEDLINE on STN DUPLICATE 4
TI Trypanosoma cruzi calreticulin is a lectin that binds monoglucosylated oligosaccharides but not protein moieties of glycoproteins.
SO MOLECULAR BIOLOGY OF THE CELL, (1999 May) 10 (5) 1381-94.
Journal code: 9201390. ISSN: 1059-1524.
AU Labriola C; Cazzulo J J; Parodi A J

AN 1999250150 MEDLINE

L74 ANSWER 10 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1999150669 ESBIOBASE
TI Purification and properties of major .alpha.-D-mannosidase in the luminal fluid of porcine epididymis
AU Jin Y.Z.; Dacheux F.; Dacheux J.L.; Bannai S.; Sugita Y.; Okamura N.
CS N. Okamura, College Medical Technology, University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan.
E-mail: naooka@igaku.md.tsukuba.ac.jp
SO Biochimica et Biophysica Acta - Protein Structure and Molecular Enzymology, (1999), 1432/2 (382-392), 35 reference(s)
CODEN: BBAEDZ ISSN: 0167-4838
PUI S016748389900117X
DT Journal; Article
CY Netherlands
LA English
SL English

L74 ANSWER 11 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1998093557 ESBIOBASE
TI Human .alpha.-galactosidase A: Characterization of the N-linked oligosaccharides on the intracellular and secreted glycoforms overexpressed by Chinese hamster ovary cells
AU Matsuura F.; Ohta M.; Ioannou Y.A.; Desnick R.J.
CS R.J. Desnick, Department of Human Genetics, Mount Sinai School of Medicine, Fifth Avenue and 100th Street, New York, NY 10029-6574, United States.
SO Glycobiology, (1998), 8/4 (329-339), 40 reference(s)
CODEN: GLYCE3 ISSN: 0959-6658
DT Journal; Article
CY United Kingdom
LA English
SL English

L74 ANSWER 12 OF 34 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Carbohydrate structures of recombinant human alpha-L-iduronidase secreted by Chinese hamster ovary cells
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (5 SEP 1997) Vol. 272, No. 36, pp. 22758-22765.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Zhao K W; Faull K F; Kakkis E D; Neufeld E F (Reprint)
AN 97:688118 SCISEARCH

L74 ANSWER 13 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1997077860 ESBIOBASE
TI Human lactase-phlorizin hydrolase expressed in COS-1 cells is proteolytically processed by the **lysosomal** pathway
AU Wuthrich M.; Sterchi E.E.
CS E.E. Sterchi, Institute Biochemistry, University of Bern, 3012 Bern, Switzerland.
E-mail: sterch@mci.unibe.ch
SO FEBS Letters, (1997), 405/3 (321-327), 21 reference(s)
CODEN: FEBLAL ISSN: 0014-5793
PUI S0014579397002068
DT Journal; Article
CY Netherlands
LA English
SL English

L74 ANSWER 14 OF 34 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Consequences of disrupting the gene that encodes alpha-**glucosidase** II in the N-linked oligosaccharide biosynthesis pathway of Dictyostelium discoideum
SO DEVELOPMENTAL GENETICS, (20 NOV 1997) Vol. 21, No. 3, pp. 177-186. Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012.
ISSN: 0192-253X.
AU Freeze H H (Reprint); Lammertz M; Iranfar N; Fuller D; Panneerselvam K; Loomis W F
AN 97:902261 SCISEARCH

L74 ANSWER 15 OF 34 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI GLYCOSYLATION AND PHOSPHORYLATION OF **LYSOSOMAL** GLYCOSYLASPARAGINASE
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (01 APR 1996) Vol. 328, No. 1, pp. 73-77.
ISSN: 0003-9861.
AU PARK H; VETTESEDADEY M; ARONSON N N (Reprint)
AN 96:279648 SCISEARCH

L74 ANSWER 16 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1995117162 ESBIOBASE
TI Characterization of the mannose 6-phosphate-dependent pathway of **lysosomal** enzyme routing in an invertebrate
AU Alvarez V.; Parodi A.J.; Couso R.
CS A.J. Parodi, Inst. Investigaciones Bioquimicas, Fundacion Campomar, Antonio Machado 151, 1405 Buenos Aires, Argentina.
SO Biochemical Journal, (1995), 310/2 (589-595)
CODEN: BIJOAK ISSN: 0264-6021
DT Journal; Article
CY United Kingdom
LA English
SL English

L74 ANSWER 17 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1994116284 ESBIOBASE
TI Purification and enzymatic properties of peptide:N-glycanase from C3H mouse-derived L-929 fibroblast cells. Possible widespread occurrence of post- translational remodification of proteins by N-deglycosylation
AU Suzuki T.; Seko A.; Kitajima K.; Inoue Y.; Inoue S.
CS Y. Inoue, Biophysics/Biochemistry Department, Faculty of Science, University of Tokyo, Hongo-7, Tokyo 113, Japan.
SO Journal of Biological Chemistry, (1994), 269/26 (17611-17618)
CODEN: JBCHA3 ISSN: 0021-9258
DT Journal; Article
CY United States
LA English
SL English

L74 ANSWER 18 OF 34 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1994101223 ESBIOBASE
TI Lysine is a common determinant for mannose phosphorylation of **lysosomal** proteins
AU Cuozzo J.W.; Sahagian G.G.
CS G.G. Sahagian, Dept. of Physiology, Tufts University, 136 Harrison Ave., Boston, MA 02111, United States.
SO Journal of Biological Chemistry, (1994), 269/20 (14490-14496)
CODEN: JBCHA3 ISSN: 0021-9258
DT Journal; Article

CY United States
LA English
SL English

L74 ANSWER 19 OF 34 MEDLINE on STN DUPLICATE 5
TI Endocytosis of **lysosomal** acid phosphatase; involvement of mannose receptor and effect of lectins.
SO BIOCHEMISTRY AND MOLECULAR BIOLOGY INTERNATIONAL, (1994 Aug) 33 (6) 1201-6.
Journal code: 9306673. ISSN: 1039-9712.
AU Imai K; Yoshimura T
AN 95102526 MEDLINE

L74 ANSWER 20 OF 34 EMBASE
on STN DUPLICATE 6
TI Intracellular degradation and reduced cell-surface expression of sucrase-isomaltase in heat shocked Caco-2 cells.
SO Biochemical Journal, (1993) 292/3 (725-734).
ISSN: 0264-6021 CODEN: BIJOAK
AU Quaroni A.; Paul E.C.A.; Nichols B.L.
AN 93210216 EMBASE

L74 ANSWER 21 OF 34 MEDLINE on STN DUPLICATE 7
TI Glycosidase inhibitors: inhibitors of N-linked oligosaccharide processing.
SO FASEB JOURNAL, (1991 Dec) 5 (15) 3055-63. Ref: 60
Journal code: 8804484. ISSN: 0892-6638.
AU Elbein A D
AN 92077332 MEDLINE

L74 ANSWER 22 OF 34 MEDLINE on STN
TI Function of oligosaccharide modification in glucocerebrosidase, a membrane-associated **lysosomal** hydrolase.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1990 Aug 17) 191 (3) 669-77.
Journal code: 0107600. ISSN: 0014-2956.
AU Van Weely S; Aerts J M; Van Leeuwen M B; Heikoop J C; Donker-Koopman W E; Barranger J A; Tager J M; Schram A W
AN 90361052 MEDLINE

L74 ANSWER 23 OF 34 MEDLINE on STN DUPLICATE 8
TI Posttranslational processing of human **lysosomal** acid beta-**glucosidase**: a continuum of defects in Gaucher disease type 1 and type 2 fibroblasts.
SO AMERICAN JOURNAL OF HUMAN GENETICS, (1989 May) 44 (5) 741-50.
Journal code: 0370475. ISSN: 0002-9297.
AU Bergmann J E; Grabowski G A
AN 89205558 MEDLINE

L74 ANSWER 24 OF 34 MEDLINE on STN
TI Glycosylation and processing of high levels of active human glucocerebrosidase in invertebrate cells using a baculovirus expression vector.
SO DNA, (1988 Mar) 7 (2) 99-106.
Journal code: 8302432. ISSN: 0198-0238.
AU Martin B M; Tsuji S; LaMarca M E; Maysak K; Eliason W; Ginns E I
AN 88195783 MEDLINE

L74 ANSWER 25 OF 34 MEDLINE on STN DUPLICATE 9
TI Receptor-mediated uptake of acid alpha-**glucosidase** corrects **lysosomal** glycogen storage in cultured skeletal muscle.
SO PEDIATRIC RESEARCH, (1988 Jul) 24 (1) 90-4.
Journal code: 0100714. ISSN: 0031-3998.
AU Van der Ploeg A T; Loonen M C; Bolhuis P A; Busch H M; Reuser A J; Galjaard H
AN 88319846 MEDLINE

L74 ANSWER 26 OF 34 MEDLINE on STN DUPLICATE 10
TI Posttranslational processing of a human myeloid **lysosomal** protein, myeloperoxidase.
SO BLOOD, (1987 Oct) 70 (4) 1143-50.
Journal code: 7603509. ISSN: 0006-4971.
AU Nauseef W M
AN 88000999 MEDLINE

L74 ANSWER 27 OF 34 MEDLINE on STN
TI Lectin-specific targeting of **lysosomal** enzymes to reticuloendothelial cells.
SO METHODS IN ENZYMOLOGY, (1987) 149 25-42.
Journal code: 0212271. ISSN: 0076-6879.
AU Murray G J
AN 88093788 MEDLINE

L74 ANSWER 28 OF 34 MEDLINE on STN
TI Biosynthesis of the **lysosomal** enzyme glucocerebrosidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1985 Nov 15) 260 (26) 14319-24.
Journal code: 2985121R. ISSN: 0021-9258.
AU Erickson A H; Ginns E I; Barranger J A
AN 86033922 MEDLINE

L74 ANSWER 29 OF 34 MEDLINE on STN DUPLICATE 11
TI Carbohydrates of **lysosomal** enzymes secreted by Tetrahymena pyriformis.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1985 Nov 15) 260 (26) 13941-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Taniguchi T; Mizuochi T; Banno Y; Nozawa Y; Kobata A
AN 86033869 MEDLINE

L74 ANSWER 30 OF 34 MEDLINE on STN
TI Mannose 6-sulfate is present in the N-linked oligosaccharides of **lysosomal** enzymes of Dictyostelium.
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1985 Dec) 243 (2) 690-3.
Journal code: 0372430. ISSN: 0003-9861.
AU Freeze H H
AN 86102157 MEDLINE

L74 ANSWER 31 OF 34 MEDLINE on STN
TI The molecular basis for charge heterogeneity in human acid alpha-**glucosidase**.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1985 May 20) 829 (1) 44-50.
Journal code: 0217513. ISSN: 0006-3002.
AU Henkel R D; Chambers J P; Williams J C
AN 85199952 MEDLINE

L74 ANSWER 32 OF 34 MEDLINE on STN DUPLICATE 12
TI The mod A mutant of Dictyostelium discoideum is missing the alpha 1,3-**glucosidase** involved in asparagine-linked oligosaccharide processing.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1983 Dec 25) 258 (24) 14880-4.
Journal code: 2985121R. ISSN: 0021-9258.
AU Freeze H H; Yeh R; Miller A L; Kornfeld S
AN 84087880 MEDLINE

L74 ANSWER 33 OF 34 MEDLINE on STN DUPLICATE 13
TI Structural analysis of the asparagine-linked oligosaccharides from three **lysosomal** enzymes of Dictyostelium discoideum. Evidence for an unusual acid-stable phosphodiester.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1983 Dec 25) 258 (24) 14874-9.
Journal code: 2985121R. ISSN: 0021-9258.
AU Freeze H H; Yeh R; Miller A L; Kornfeld S

AN 84087879 MEDLINE

L74 ANSWER 34 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 14
TI **LYSOSOMAL** ENZYME PHOSPHORYLATION IN MOUSE LYMPHOMA CELL LINES WITH ALTERED ASPARAGINE LINKED OLIGO SACCHARIDES.
SO J BIOL CHEM, (1982) 257 (18), 10605-10612.
CODEN: JBCHA3. ISSN: 0021-9258.
AU GABEL C A; KORNFELD S
AN 1983:329682 BIOSIS

=> d ab 19,27

L74 ANSWER 19 OF 34 MEDLINE on STN DUPLICATE 5
AB Acid phosphatase and beta-**glucosidase** are unique among **lysosomal** enzymes in that they have both **high mannose** and complex type sugasr chains, whereas oligosaccharide chains of **lysosomal** enzymes in matrix are of **high mannose** type. We have previously shown that beta-**glucosidase** was endocytosed into macrophages via an unidentified receptor different from a mannose/fucose receptor (K. Imai, Cell Struct. Funct. 13, 325-332, 1988). Here, we show that uptake of acid phosphatase purified from rat liver **lysosomes** into rat macrophages was inhibited by ligands for a mannose/fucose receptor and was mediated via an apparently single binding site with Kuptake of 24.7 nM. These results indicate that acid phosphatase and beta-**glucosidase** recognize different types of receptors even if they have similar sugar chains. Polyvalent concanavalin A which binds both to the enzyme and to macrophages specifically stimulated the uptake in a dose dependent manner, whereas wheat germ agglutinin and phytohaemagglutinin did not.

L74 ANSWER 27 OF 34 MEDLINE on STN
AB The principles and methods used for enzymatic modification of the carbohydrate portion of glucocerebrosidase are similar to those performed by Ashwell and Morell, Stahl, and others. It is difficult to explain the lack of uptake of native enzyme through binding of the **high-mannose** type glycopeptide to Man/GlcNAc receptors since approximately 20% of the total oligosaccharides on the native enzyme are **high mannose** type. Possibly a requirement for multiple sites of attachment to the receptor is not met by a single **high-mannose** type oligosaccharide per molecule. Alternatively, the presence of complex type oligosaccharides on this enzyme, demonstrated by structural studies, may mask the mannose site and thus account for the poor uptake of native enzyme. The ability to successfully deglycosylate any protein or enzyme in order to specifically target a selected cell type requires that there be (1) an available source of pure enzyme; (2) specific exoglycosidases of high specific activity available either commercially or relatively easily purified; (3) chemical or biochemical means available for the testing of the product, preferably at each step; and (4) a means of separating the glycosidases used from the desired enzyme product. The characteristic and unique accumulation of glucocerebroside only in cells of the monocyte- histiocyte series, makes Gaucher's disease an excellent prototype for the study of enzyme replacement therapy. The principles demonstrated for the enzymatic deglycosylation of glucocerebrosidase may be applied to the cell-specific delivery of other glycoproteins as well. Other **lysosomal** diseases in which storage occurs in multiple cell types may be ameliorated by administration of macrophage-directed enzymes if, by so doing, storage material can be digested during the normal phagocytic turnover of senescent cells. Consideration of the kinetics of degradation and the structural features affecting the stability of enzymes in vivo are prerequisites to improving the bioengineering of targeted **lysosomal** enzymes. Animal and culture models have been developed

for the study of glucocerebrosidase delivery to specific cell types and substrate degradation. Other studies have progressed toward a definition not only of the receptors at the plasma membrane involved in the internalization of exogenous enzyme, but also of internal receptors or properties of the **lysosome** responsible for intracellular protein trafficking. A complete understanding of the forces acting to direct endogenous or exogenously supplied enzyme to a given subcellular organelle will require a synthesis of experimental results from all areas of glycoprotein research.

```
=> s alpha glycosidase#
FILE 'MEDLINE'
        454313 ALPHA
          4733 GLYCOSIDASE#
L75         39 ALPHA GLYCOSIDASE#
                 (ALPHA(W)GLYCOSIDASE#)

FILE 'SCISEARCH'
        643876 ALPHA
          4762 GLYCOSIDASE#
L76         42 ALPHA GLYCOSIDASE#
                 (ALPHA(W)GLYCOSIDASE#)

FILE 'LIFESCI'
        147374 "ALPHA"
          1358 GLYCOSIDASE#
L77         14 ALPHA GLYCOSIDASE#
                 ("ALPHA"(W)GLYCOSIDASE#)

FILE 'BIOTECHDS'
         23979 ALPHA
           537 GLYCOSIDASE#
L78          9 ALPHA GLYCOSIDASE#
                 (ALPHA(W)GLYCOSIDASE#)

FILE 'BIOSIS'
        596697 ALPHA
          5568 GLYCOSIDASE#
L79         87 ALPHA GLYCOSIDASE#
                 (ALPHA(W)GLYCOSIDASE#)

FILE 'EMBASE'
        508813 "ALPHA"
          4660 GLYCOSIDASE#
L80         54 ALPHA GLYCOSIDASE#
                 ("ALPHA"(W)GLYCOSIDASE#)

FILE 'HCAPLUS'
       1434625 ALPHA
          7312 GLYCOSIDASE#
L81        172 ALPHA GLYCOSIDASE#
                 (ALPHA(W)GLYCOSIDASE#)

FILE 'NTIS'
         28426 ALPHA
            49 GLYCOSIDASE#
L82          1 ALPHA GLYCOSIDASE#
                 (ALPHA(W)GLYCOSIDASE#)

FILE 'ESBIOBASE'
        176805 ALPHA
          1621 GLYCOSIDASE#
L83         11 ALPHA GLYCOSIDASE#
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                (ALPHA(W)GLYCOSIDASE#)

FILE 'BIOTECHNO'
        183303 ALPHA
          2589 GLYCOSIDASE#
L84         13 ALPHA GLYCOSIDASE#
                (ALPHA(W)GLYCOSIDASE#)

FILE 'WPIDS'
        165002 ALPHA
           525 GLYCOSIDASE#
L85         47 ALPHA GLYCOSIDASE#
                (ALPHA(W)GLYCOSIDASE#)

TOTAL FOR ALL FILES
L86        489 ALPHA GLYCOSIDASE#

=> s l86 and (high mannose)
FILE 'MEDLINE'
       1147840 HIGH
         16633 MANNOSE
          1894 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L87           0 L75 AND (HIGH MANNOSE)

FILE 'SCISEARCH'
       1662292 HIGH
         12311 MANNOSE
          1232 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L88           0 L76 AND (HIGH MANNOSE)

FILE 'LIFESCI'
        319327 "HIGH"
          5538 "MANNOSE"
           619 HIGH MANNOSE
                ("HIGH"(W)"MANNOSE")
L89           0 L77 AND (HIGH MANNOSE)

FILE 'BIOTECHDS'
         59408 HIGH
          1594 MANNOSE
           124 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L90           1 L78 AND (HIGH MANNOSE)

FILE 'BIOSIS'
       1288397 HIGH
         19310 MANNOSE
          2009 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L91           0 L79 AND (HIGH MANNOSE)

FILE 'EMBASE'
       1110952 "HIGH"
         12998 "MANNOSE"
          1552 HIGH MANNOSE
                ("HIGH"(W)"MANNOSE")
L92           0 L80 AND (HIGH MANNOSE)

FILE 'HCAPLUS'
       3235469 HIGH
         34625 MANNOSE
          2232 HIGH MANNOSE
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```
                (HIGH(W)MANNOSE)
L93           0 L81 AND (HIGH MANNOSE)

FILE 'NTIS'
        316508 HIGH
           112 MANNOSE
             6 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L94           0 L82 AND (HIGH MANNOSE)

FILE 'ESBIOBASE'
        376465 HIGH
          4745 MANNOSE
           569 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L95           0 L83 AND (HIGH MANNOSE)

FILE 'BIOTECHNO'
        290618 HIGH
          7018 MANNOSE
          1167 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L96           0 L84 AND (HIGH MANNOSE)

FILE 'WPIDS'
       1732738 HIGH
          2350 MANNOSE
            42 HIGH MANNOSE
                (HIGH(W)MANNOSE)
L97           1 L85 AND (HIGH MANNOSE)

TOTAL FOR ALL FILES
L98           2 L86 AND (HIGH MANNOSE)

=> d tot

L98   ANSWER 1 OF 2  BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
TI    Producing recombinant proteins e.g., glucocerebrosidase with high
      -mannose carbohydrate structure, involves continuously
      culturing cells of Pichia pastoris that comprise DNA molecule encoding
      protein of interest;
         for use in lysosomal acid lipase, alpha-glycosidase
         , alpha-L-iduronidase, alpha-galactosidase, iduronate sulfatase,
         galactosamine-6-sulfatase, beta-galactosidase, arylsulfatase and
         recombinant protein preparation
AU    WAN N; HOPPE H; GOODRICK J C; SCHILLING B M
AN    2002-18508  BIOTECHDS
PI    WO 2002040686 23 May 2002

L98  ANSWER 2 OF 2  WPIDS  COPYRIGHT 2003 THOMSON DERWENT on STN
TI   Producing recombinant proteins e.g., glucocerebrosidase with high
     -mannose carbohydrate structure, involves continuously culturing
     cells of Pichia pastoris that comprise DNA molecule encoding protein of
     interest.
PI   WO 2002040686 A2 20020523 (200254)* EN   40p    C12N015-81
        RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
         W: AU CA JP
     AU 2002032803 A  20020527 (200261)             C12N015-81
     US 2003064437 A1 20030403 (200325)             C12P021-02
IN.  GOODRICK, J C; HOPPE, H; SCHILLING, B M; WAN, N


=> s lysosomal hydrolase#
FILE 'MEDLINE'
```

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         20572 LYSOSOMAL
         68147 HYDROLASE#
L1        1018 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'SCISEARCH'
         15268 LYSOSOMAL
         14241 HYDROLASE#
L2         615 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'LIFESCI'
          4624 "LYSOSOMAL"
          4710 HYDROLASE#
L3         170 LYSOSOMAL HYDROLASE#
                 ("LYSOSOMAL"(W)HYDROLASE#)

FILE 'BIOTECHDS'
           315 LYSOSOMAL
          2095 HYDROLASE#
L4          10 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'BIOSIS'
         24110 LYSOSOMAL
         20829 HYDROLASE#
L5        1242 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'EMBASE'
         18228 "LYSOSOMAL"
         13984 HYDROLASE#
L6         970 LYSOSOMAL HYDROLASE#
                 ("LYSOSOMAL"(W)HYDROLASE#)

FILE 'HCAPLUS'
         21860 LYSOSOMAL
         21500 HYDROLASE#
L7        1109 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'NTIS'
           160 LYSOSOMAL
          1125 HYDROLASE#
L8           6 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'ESBIOBASE'
          4898 LYSOSOMAL
          4900 HYDROLASE#
L9         178 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'BIOTECHNO'
          5825 LYSOSOMAL
          6567 HYDROLASE#
L10        250 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)

FILE 'WPIDS'
           348 LYSOSOMAL
          1845 HYDROLASE#
L11          9 LYSOSOMAL HYDROLASE#
                 (LYSOSOMAL(W)HYDROLASE#)
```

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TOTAL FOR ALL FILES
L12        5577 LYSOSOMAL HYDROLASE#

=> s l12 and mannose
FILE 'MEDLINE'
          16633 MANNOSE
L13          92 L1 AND MANNOSE

FILE 'SCISEARCH'
          12311 MANNOSE
L14          62 L2 AND MANNOSE

FILE 'LIFESCI'
           5538 MANNOSE
L15          20 L3 AND MANNOSE

FILE 'BIOTECHDS'
           1594 MANNOSE
L16           3 L4 AND MANNOSE

FILE 'BIOSIS'
          19310 MANNOSE
L17         100 L5 AND MANNOSE

FILE 'EMBASE'
          12998 MANNOSE
L18          78 L6 AND MANNOSE

FILE 'HCAPLUS'
          34625 MANNOSE
L19          95 L7 AND MANNOSE

FILE 'NTIS'
            112 MANNOSE
L20           0 L8 AND MANNOSE

FILE 'ESBIOBASE'
           4745 MANNOSE
L21          35 L9 AND MANNOSE

FILE 'BIOTECHNO'
           7018 MANNOSE
L22          46 L10 AND MANNOSE

FILE 'WPIDS'
           2350 MANNOSE
L23           2 L11 AND MANNOSE

TOTAL FOR ALL FILES
L24         533 L12 AND MANNOSE

=> s l24 and recombinant
FILE 'MEDLINE'
         212217 RECOMBINANT
L25          14 L13 AND RECOMBINANT

FILE 'SCISEARCH'
         125730 RECOMBINANT
L26           7 L14 AND RECOMBINANT

FILE 'LIFESCI'
          57598 RECOMBINANT
L27           2 L15 AND RECOMBINANT
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FILE 'BIOTECHDS'
         73723 RECOMBINANT
L28          3 L16 AND RECOMBINANT

FILE 'BIOSIS'
        166116 RECOMBINANT
L29          5 L17 AND RECOMBINANT

FILE 'EMBASE'
        137778 RECOMBINANT
L30          3 L18 AND RECOMBINANT

FILE 'HCAPLUS'
        148453 RECOMBINANT
L31          6 L19 AND RECOMBINANT

FILE 'NTIS'
          1472 RECOMBINANT
L32          0 L20 AND RECOMBINANT

FILE 'ESBIOBASE'
         65245 RECOMBINANT
L33          4 L21 AND RECOMBINANT

FILE 'BIOTECHNO'
        121219 RECOMBINANT
L34          5 L22 AND RECOMBINANT

FILE 'WPIDS'
         30681 RECOMBINANT
L35          2 L23 AND RECOMBINANT

TOTAL FOR ALL FILES
L36         51 L24 AND RECOMBINANT

=> dup rem l36
PROCESSING COMPLETED FOR L36
L37          21 DUP REM L36 (30 DUPLICATES REMOVED)

=> d tot

L37  ANSWER 1 OF 21  HCAPLUS  COPYRIGHT 2003 ACS on STN
TI   Soluble human acetylglucosamine-1-phosphotransferase containing an
     artificial proteolytic cleavage site to generate .alpha. and .beta.
     subunits
SO   U.S. Pat. Appl. Publ., 55 pp.
     CODEN: USXXCO
IN   Canfield, William; Kudo, Mariko
AN   2003:492554  HCAPLUS
DN   139:65404
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
PI   US 2003119088      A1   20030626      US 2001-23888    20011221
     WO 2003057826      A2   20030717      WO 2002-US37624  20021220
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
```

PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

L37 ANSWER 2 OF 21 MEDLINE on STN
TI Phosphoregulation of sorting signal-VHS domain interactions by a direct electrostatic mechanism.
SO NATURE STRUCTURAL BIOLOGY, (2002 Jul) 9 (7) 532-6.
Journal code: 9421566. ISSN: 1072-8368.
AU Kato Yukio; Misra Saurav; Puertollano Rosa; Hurley James H; Bonifacino Juan S
AN 2002337810 MEDLINE

L37 ANSWER 3 OF 21 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
TI Novel N-acetylglucosamine-1-phosphotransferase and N-acetylglucosamine-1-phosphodiester-alpha-N-acetylglucosaminidase, useful for producing phosphorylated **lysosomal hydrolase** for treating lysosomal storage diseases;
vector-mediated gene transfer and expression in host cell, monoclonal antibody and hybridoma
AU Canfield W M
AN 2001-09921 BIOTECHDS
PI WO 2001019955 22 Mar 2001

L37 ANSWER 4 OF 21 MEDLINE on STN
TI **Lysosomal hydrolase mannose** 6-phosphate uncovering enzyme resides in the trans-Golgi network.
SO MOLECULAR BIOLOGY OF THE CELL, (2001 Jun) 12 (6) 1623-31.
Journal code: 9201390. ISSN: 1059-1524.
AU Rohrer J; Kornfeld R
AN 2001345639 MEDLINE

L37 ANSWER 5 OF 21 MEDLINE on STN
TI Role of Rab9 GTPase in facilitating receptor recruitment by TIP47.
SO SCIENCE, (2001 May 18) 292 (5520) 1373-6.
Journal code: 0404511. ISSN: 0036-8075.
AU Carroll K S; Hanna J; Simon I; Krise J; Barbero P; Pfeffer S R
AN 2001268127 MEDLINE

L37 ANSWER 6 OF 21 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
TI Identifying candidate drugs for Alzheimer's disease, from their ability to reduce endocytic activity or beta-amyloid deposition in cells or animals with increased endocytic activity.
PI WO 2000067016 A1 20001109 (200067)* EN 64p G01N033-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000046734 A 20001117 (200111) G01N033-00
EP 1181550 A1 20020227 (200222) EN G01N033-00
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2002543425 W 20021217 (200312) 61p G01N033-50
IN CATALDO, A M; MATHEWS, P M; NIXON, R A

L37 ANSWER 7 OF 21 MEDLINE on STN
TI Mammalian tumor susceptibility gene 101 (TSG101) and the yeast homologue, Vps23p, both function in late endosomal trafficking.
SO TRAFFIC, (2000 Mar) 1 (3) 248-58.
Journal code: 100939340. ISSN: 1398-9219.
AU Babst M; Odorizzi G; Estepa E J; Emr S D
AN 2001245022 MEDLINE

L37 ANSWER 8 OF 21 MEDLINE on STN DUPLICATE 2
TI Mobilization of late-endosomal cholesterol is inhibited by Rab guanine nucleotide dissociation inhibitor.
SO CURRENT BIOLOGY, (2000 Jan 27) 10 (2) 95-8.
Journal code: 9107782. ISSN: 0960-9822.
AU Holtta-Vuori M; Maatta J; Ullrich O; Kuismanen E; Ikonen E
AN 2000130807 MEDLINE

L37 ANSWER 9 OF 21 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Selective perturbation of early endosome and/or trans-Golgi network pH but not lysosome pH by dose-dependent expression of influenza M2 protein
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2 APR 1999) Vol. 274, No. 14, pp. 9854-9860.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Henkel J R; Popovich J L; Gibson G A; Watkins S C; Weisz O A (Reprint)
AN 1999:271014 SCISEARCH

L37 ANSWER 10 OF 21 MEDLINE on STN DUPLICATE 3
TI Correction of enzymatic and lysosomal storage defects in Fabry mice by adenovirus-mediated gene transfer.
SO HUMAN GENE THERAPY, (1999 Jul 1) 10 (10) 1667-82.
Journal code: 9008950. ISSN: 1043-0342.
AU Ziegler R J; Yew N S; Li C; Cherry M; Berthelette P; Romanczuk H; Ioannou Y A; Zeidner K M; Desnick R J; Cheng S H
AN 1999355166 MEDLINE

L37 ANSWER 11 OF 21 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
TI Retrovirus vector-mediated correction and cross-correction of lysosomal alpha-mannosidase deficiency in human and feline fibroblasts; retro virus vector-mediated human alpha-mannosidase in vitro expression in human and cat alpha-mannosidosis fibroblast, promising for the development of gene therapy of this disease
SO Hum.Gene Ther.; (1999) 10, 8, 1311-19
CODEN: HGTHE3 ISSN: 1043-0342
AU Sun H; Yang M; Haskins M E; Patterson D F; *Wolfe J H
AN 1999-08229 BIOTECHDS

L37 ANSWER 12 OF 21 MEDLINE on STN DUPLICATE 4
TI Human alpha-galactosidase A: glycosylation site 3 is essential for enzyme solubility.
SO BIOCHEMICAL JOURNAL, (1998 Jun 15) 332 (Pt 3) 789-97.
Journal code: 2984726R. ISSN: 0264-6021.
AU Ioannou Y A; Zeidner K M; Grace M E; Desnick R J
AN 1998285549 MEDLINE

L37 ANSWER 13 OF 21 MEDLINE on STN
TI Molecular basis of lysosomal enzyme recognition: three-dimensional structure of the cation-dependent **mannose** 6-phosphate receptor.
SO CELL, (1998 May 15) 93 (4) 639-48.
Journal code: 0413066. ISSN: 0092-8674.
AU Roberts D L; Weix D J; Dahms N M; Kim J J
AN 1998265974 MEDLINE

L37 ANSWER 14 OF 21 MEDLINE on STN
TI TIP47: a cargo selection device for **mannose** 6-phosphate receptor trafficking.
SO CELL, (1998 May 1) 93 (3) 433-43.
Journal code: 0413066. ISSN: 0092-8674.
AU Diaz E; Pfeffer S R
AN 1998250059 MEDLINE

L37 ANSWER 15 OF 21 MEDLINE on STN DUPLICATE 5

TI N-glycoprotein biosynthesis in plants: recent developments and future trends.
SO PLANT MOLECULAR BIOLOGY, (1998 Sep) 38 (1-2) 31-48. Ref: 101
Journal code: 9106343. ISSN: 0167-4412.
AU Lerouge P; Cabanes-Macheteau M; Rayon C; Fischette-Laine A C; Gomord V; Faye L
AN 1998409339 MEDLINE

L37 ANSWER 16 OF 21 MEDLINE on STN DUPLICATE 6
TI Carbohydrate structures of **recombinant** human alpha-L-iduronidase secreted by Chinese hamster ovary cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1997 Sep 5) 272 (36) 22758-65.
Journal code: 2985121R. ISSN: 0021-9258.
AU Zhao K W; Faull K F; Kakkis E D; Neufeld E F
AN 97426422 MEDLINE

L37 ANSWER 17 OF 21 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI The phosphorylation of bovine DNase I Asn-linked oligosaccharides is dependent on specific lysine and arginine residues
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1 AUG 1997) Vol. 272, No. 31, pp. 19408-19412.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Nishikawa A; Gregory W; Frenz J; Cacia J; Kornfeld S (Reprint)
AN 97:591315 SCISEARCH

L37 ANSWER 18 OF 21 MEDLINE on STN
TI Several cooperating binding sites mediate the interaction of a lysosomal enzyme with phosphotransferase.
SO EMBO JOURNAL, (1997 Nov 17) 16 (22) 6684-93.
Journal code: 8208664. ISSN: 0261-4189.
AU Tikkanen R; Peltola M; Oinonen C; Rouvinen J; Peltonen L
AN 1998031896 MEDLINE

L37 ANSWER 19 OF 21 MEDLINE on STN DUPLICATE 7
TI Overexpression of the human lysosomal enzyme alpha-L-iduronidase in Chinese hamster ovary cells.
SO PROTEIN EXPRESSION AND PURIFICATION, (1994 Jun) 5 (3) 225-32.
Journal code: 9101496. ISSN: 1046-5928.
AU Kakkis E D; Matynia A; Jonas A J; Neufeld E F
AN 95037699 MEDLINE

L37 ANSWER 20 OF 21 MEDLINE on STN
TI Mouse procathepsin L lacking a functional glycosylation site is properly folded, stable, and secreted by NIH 3T3 cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 May 25) 268 (15) 11456-62.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kane S E
AN 93266607 MEDLINE

L37 ANSWER 21 OF 21 LIFESCI COPYRIGHT 2003 CSA on STN
TI Using **recombinant** DNA techniques to study protein targeting in the eucaryotic cell.
ANNUAL REVIEW OF CELL BIOLOGY.
SO (1985) vol. 1, pp. 403-445.
ISBN: 0-8243-3101-X.
AU Garoff, H.; Palade, G.E. [editor]; Alberts, B.M. [editor]; Spudich, J.A. [editor]
AN 85:86706 LIFESCI

=> s l24 not 2002-2003/py
FILE 'MEDLINE'

```
        898624 2002-2003/PY
L38          88 L13 NOT 2002-2003/PY

FILE 'SCISEARCH'
       1628347 2002-2003/PY
L39          58 L14 NOT 2002-2003/PY

FILE 'LIFESCI'
        137782 2002-2003/PY
L40          18 L15 NOT 2002-2003/PY

FILE 'BIOTECHDS'
         36013 2002-2003/PY
L41           3 L16 NOT 2002-2003/PY

FILE 'BIOSIS'
        812724 2002-2003/PY
L42          95 L17 NOT 2002-2003/PY

FILE 'EMBASE'
        739028 2002-2003/PY
L43          74 L18 NOT 2002-2003/PY

FILE 'HCAPLUS'
       1765463 2002-2003/PY
L44          89 L19 NOT 2002-2003/PY

FILE 'NTIS'
         17588 2002-2003/PY
L45           0 L20 NOT 2002-2003/PY

FILE 'ESBIOBASE'
        467486 2002-2003/PY
L46          31 L21 NOT 2002-2003/PY

FILE 'BIOTECHNO'
        203275 2002-2003/PY
L47          44 L22 NOT 2002-2003/PY

FILE 'WPIDS'
       1736742 2002-2003/PY
L48           0 L23 NOT 2002-2003/PY

TOTAL FOR ALL FILES
L49         500 L24 NOT 2002-2003/PY

=> dup rem l49
PROCESSING COMPLETED FOR L49
L50          140 DUP REM L49 (360 DUPLICATES REMOVED)

=> d tot

L50   ANSWER 1 OF 140  BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
TI    Novel N-acetylglucosamine-1-phosphotransferase and N-acetylglucosamine-1-
      phosphodiester-alpha-N-acetylglucosaminidase, useful for producing
      phosphorylated lysosomal hydrolase for treating
      lysosomal storage diseases;
         vector-mediated gene transfer and expression in host cell, monoclonal
         antibody and hybridoma
AU    Canfield W M
AN    2001-09921  BIOTECHDS
PI    WO 2001019955 22 Mar 2001

L50  ANSWER 2 OF 140  SCISEARCH  COPYRIGHT 2003 THOMSON ISI on STN
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TI Sterol-modulated glycolipid sorting occurs in Niemann-Pick C1 late endosomes
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2 FEB 2001) Vol. 276, No. 5, pp. 3417-3425.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.
ISSN: 0021-9258.
AU Zhang M; Dwyer N K; Neufeld E B; Love D C; Cooney A; Comly M; Patel S; Watari H; Strauss J F; Pentchev P G; Hanover J A; Blanchette-Mackie E J (Reprint)
AN 2001:144567 SCISEARCH

L50 ANSWER 3 OF 140 MEDLINE on STN DUPLICATE 1
TI **Lysosomal hydrolase mannose** 6-phosphate uncovering enzyme resides in the trans-Golgi network.
SO MOLECULAR BIOLOGY OF THE CELL, (2001 Jun) 12 (6) 1623-31.
Journal code: 9201390. ISSN: 1059-1524.
AU Rohrer J; Kornfeld R
AN 2001345639 MEDLINE

L50 ANSWER 4 OF 140 MEDLINE on STN DUPLICATE 2
TI Role of Rab9 GTPase in facilitating receptor recruitment by TIP47.
SO SCIENCE, (2001 May 18) 292 (5520) 1373-6.
Journal code: 0404511. ISSN: 0036-8075.
AU Carroll K S; Hanna J; Simon I; Krise J; Barbero P; Pfeffer S R
AN 2001268127 MEDLINE

L50 ANSWER 5 OF 140 MEDLINE on STN DUPLICATE 3
TI Histopathology, electrodiagnostic testing, and magnetic resonance imaging show significant peripheral and central nervous system myelin abnormalities in the cat model of alpha-mannosidosis.
SO JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY, (2001 Aug) 60 (8) 817-28.
Journal code: 2985192R. ISSN: 0022-3069.
AU Vite C H; McGowan J C; Braund K G; Drobatz K J; Glickson J D; Wolfe J H; Haskins M E
AN 2001441376 MEDLINE

L50 ANSWER 6 OF 140 MEDLINE on STN DUPLICATE 4
TI Towards a human repertoire of monocytic lysosomal proteins.
SO ELECTROPHORESIS, (2000 Oct) 21 (16) 3411-9.
Journal code: 8204476. ISSN: 0173-0835.
AU Journet A; Chapel A; Kieffer S; Louwagie M; Luche S; Garin J
AN 2001135312 MEDLINE

L50 ANSWER 7 OF 140 MEDLINE on STN DUPLICATE 5
TI The lysosomal protease cathepsin D is efficiently sorted to and secreted from regulated secretory compartments in the rat basophilic/mast cell line RBL.
SO JOURNAL OF CELL SCIENCE, (2000 Sep) 113 (Pt 18) 3289-98.
Journal code: 0052457. ISSN: 0021-9533.
AU Dragonetti A; Baldassarre M; Castino R; Demoz M; Luini A; Buccione R; Isidoro C
AN 2001038308 MEDLINE

L50 ANSWER 8 OF 140 MEDLINE on STN DUPLICATE 6
TI Mammalian tumor susceptibility gene 101 (TSG101) and the yeast homologue, Vps23p, both function in late endosomal trafficking.
SO TRAFFIC, (2000 Mar) 1 (3) 248-58.
Journal code: 100939340. ISSN: 1398-9219.
AU Babst M; Odorizzi G; Estepa E J; Emr S D
AN 2001245022 MEDLINE

L50 ANSWER 9 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 7

TI Rab7, a multifaceted GTP-binding protein regulating access to degradative compartments in eukaryotic cells
SO PROTOPLASMA, (MAY 2000) Vol. 210, No. 3-4, pp. 108-116.
Publisher: SPRINGER-VERLAG WIEN, SACHSENPLATZ 4-6, PO BOX 89, A-1201 VIENNA, AUSTRIA.
ISSN: 0033-183X.
AU Bruckert F (Reprint); Laurent O; Satre M
AN 2000:201331 SCISEARCH

L50 ANSWER 10 OF 140 MEDLINE on STN DUPLICATE 8
TI Mobilization of late-endosomal cholesterol is inhibited by Rab guanine nucleotide dissociation inhibitor.
SO CURRENT BIOLOGY, (2000 Jan 27) 10 (2) 95-8.
Journal code: 9107782. ISSN: 0960-9822.
AU Holtta-Vuori M; Maatta J; Ullrich O; Kuismanen E; Ikonen E
AN 2000130807 MEDLINE

L50 ANSWER 11 OF 140 MEDLINE on STN DUPLICATE 9
TI Lectins and traffic in the secretory pathway.
SO FEBS LETTERS, (2000 Jun 30) 476 (1-2) 32-7. Ref: 67
Journal code: 0155157. ISSN: 0014-5793.
AU Hauri H; Appenzeller C; Kuhn F; Nufer O
AN 2000341208 MEDLINE

L50 ANSWER 12 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Accumulation of sialic acid in endocytic compartments interferes with the formation of mature lysosomes - Impaired proteolytic processing of cathepsin B in fibroblasts of patients with lysosomal sialic acid storage disease
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2 JUL 1999) Vol. 274, No. 27, pp. 19063-19071.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Schmid J A; Mach L; Paschke E; Glossl J (Reprint)
AN 1999:524469 SCISEARCH

L50 ANSWER 13 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Selective perturbation of early endosome and/or trans-Golgi network pH but not lysosome pH by dose-dependent expression of influenza M2 protein
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2 APR 1999) Vol. 274, No. 14, pp. 9854-9860.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Henkel J R; Popovich J L; Gibson G A; Watkins S C; Weisz O A (Reprint)
AN 1999:271014 SCISEARCH

L50 ANSWER 14 OF 140 MEDLINE on STN DUPLICATE 10
TI Correction of enzymatic and lysosomal storage defects in Fabry mice by adenovirus-mediated gene transfer.
SO HUMAN GENE THERAPY, (1999 Jul 1) 10 (10) 1667-82.
Journal code: 9008950. ISSN: 1043-0342.
AU Ziegler R J; Yew N S; Li C; Cherry M; Berthelette P; Romanczuk H; Ioannou Y A; Zeidner K M; Desnick R J; Cheng S H
AN 1999355166 MEDLINE

L50 ANSWER 15 OF 140 MEDLINE on STN DUPLICATE 11
TI Retrovirus vector-mediated correction and cross-correction of lysosomal alpha-mannosidase deficiency in human and feline fibroblasts.
SO HUMAN GENE THERAPY, (1999 May 20) 10 (8) 1311-9.
Journal code: 9008950. ISSN: 1043-0342.
AU Sun H; Yang M; Haskins M E; Patterson D F; Wolfe J H
AN 1999291784 MEDLINE

L50 ANSWER 16 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Alteration in pancreatic immunoreactivity of insulin-like growth factor (IGF)-binding protein (IGFBP)-6 and in intracellular degradation of IGFBP-3 in fibroblasts of IGF-II receptor/IGF-II-deficient mice
SO HORMONE AND METABOLIC RESEARCH, (FEB-MAR 1999) Vol. 31, No. 2-3, pp. 235-241.
Publisher: GEORG THIEME VERLAG, P O BOX 30 11 20, D-70451 STUTTGART, GERMANY.
ISSN: 0018-5043.
AU Braulke T (Reprint); Dittmer F; Gotz W; vonFigura K
AN 1999:300158 SCISEARCH

L50 ANSWER 17 OF 140 MEDLINE on STN DUPLICATE 12
TI Processing of normal lysosomal and mutant N-acetylgalactosamine 4-sulphatase: BiP (immunoglobulin heavy-chain binding protein) may interact with critical protein contact sites.
SO BIOCHEMICAL JOURNAL, (1999 Jul 1) 341 (Pt 1) 193-201.
Journal code: 2984726R. ISSN: 0264-6021.
AU Bradford T M; Gething M J; Davey R; Hopwood J J; Brooks D A
AN 1999306872 MEDLINE

L50 ANSWER 18 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI Increased Abeta secretion in cells overexpressing the 46 kDa, cation-dependent **mannose** 6-phosphate receptor (CD-MPR.
SO Molecular Biology of the Cell, (Nov., 1999) Vol. 10, No. SUPPL., pp. 112a.
Meeting Info.: 39th Annual Meeting of the American Society for Cell Biology Washington, D.C., USA December 11-15, 1999 The American Society for Cell Biology
. ISSN: 1059-1524.
AU Mathews, Paul M. (1); Guerra, Carolyn (1); Jiang, Ying (1); Cataldo, Anne M. (1); Nixon, Ralph A. (1)
AN 2000:27970 BIOSIS

L50 ANSWER 19 OF 140 MEDLINE on STN DUPLICATE 13
TI Purification and multimeric structure of bovine N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Sep 4) 273 (36) 23203-10.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kornfeld R; Bao M; Brewer K; Noll C; Canfield W M
AN 1998389751 MEDLINE

L50 ANSWER 20 OF 140 MEDLINE on STN DUPLICATE 14
TI Mutant Rab7 causes the accumulation of cathepsin D and cation-independent **mannose** 6-phosphate receptor in an early endocytic compartment.
SO JOURNAL OF CELL BIOLOGY, (1998 Mar 9) 140 (5) 1075-89.
Journal code: 0375356. ISSN: 0021-9525.
AU Press B; Feng Y; Hoflack B; Wandinger-Ness A
AN 1998158704 MEDLINE

L50 ANSWER 21 OF 140 MEDLINE on STN DUPLICATE 15
TI Human alpha-galactosidase A: glycosylation site 3 is essential for enzyme solubility.
SO BIOCHEMICAL JOURNAL, (1998 Jun 15) 332 (Pt 3) 789-97.
Journal code: 2984726R. ISSN: 0264-6021.
AU Ioannou Y A; Zeidner K M; Grace M E; Desnick R J
AN 1998285549 MEDLINE

L50 ANSWER 22 OF 140 MEDLINE on STN DUPLICATE 16
TI Molecular basis of lysosomal enzyme recognition: three-dimensional structure of the cation-dependent **mannose** 6-phosphate receptor.
SO CELL, (1998 May 15) 93 (4) 639-48.
Journal code: 0413066. ISSN: 0092-8674.
AU Roberts D L; Weix D J; Dahms N M; Kim J J

AN 1998265974 MEDLINE

L50 ANSWER 23 OF 140 MEDLINE on STN DUPLICATE 17
TI TIP47: a cargo selection device for **mannose** 6-phosphate receptor trafficking.
SO CELL, (1998 May 1) 93 (3) 433-43.
Journal code: 0413066. ISSN: 0092-8674.
AU Diaz E; Pfeffer S R
AN 1998250059 MEDLINE

L50 ANSWER 24 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI beta-hexosaminidases: Potent mitogens of airway smooth muscle
SO ALLERGY AND ASTHMA PROCEEDINGS, (NOV-DEC 1998) Vol. 19, No. 6, pp. 359-363.
Publisher: OCEAN SIDE PUBLICATIONS INC, 95 PITMAN ST, PROVIDENCE, RI 02906.
ISSN: 1088-5412.
AU Lew D B (Reprint)
AN 1999:21358 SCISEARCH

L50 ANSWER 25 OF 140 MEDLINE on STN DUPLICATE 18
TI Isolation and characterization of Salmonella typhimurium and Yersinia pseudotuberculosis-containing phagosomes from infected mouse macrophages: Y. pseudotuberculosis traffics to terminal lysosomes where they are degraded.
SO EUROPEAN JOURNAL OF CELL BIOLOGY, (1998 Sep) 77 (1) 35-47.
Journal code: 7906240. ISSN: 0171-9335.
AU Mills S D; Finlay B B
AN 1999023473 MEDLINE

L50 ANSWER 26 OF 140 MEDLINE on STN DUPLICATE 19
TI N-glycoprotein biosynthesis in plants: recent developments and future trends.
SO PLANT MOLECULAR BIOLOGY, (1998 Sep) 38 (1-2) 31-48. Ref: 101
Journal code: 9106343. ISSN: 0167-4412.
AU Lerouge P; Cabanes-Macheteau M; Rayon C; Fischette-Laine A C; Gomord V; Faye L
AN 1998409339 MEDLINE

L50 ANSWER 27 OF 140 MEDLINE on STN DUPLICATE 20
TI Carbohydrate structures of recombinant human alpha-L-iduronidase secreted by Chinese hamster ovary cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1997 Sep 5) 272 (36) 22758-65.
Journal code: 2985121R. ISSN: 0021-9258.
AU Zhao K W; Faull K F; Kakkis E D; Neufeld E F
AN 97426422 MEDLINE

L50 ANSWER 28 OF 140 MEDLINE on STN DUPLICATE 21
TI The phosphorylation of bovine DNase I Asn-linked oligosaccharides is dependent on specific lysine and arginine residues.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1997 Aug 1) 272 (31) 19408-12.
Journal code: 2985121R. ISSN: 0021-9258.
AU Nishikawa A; Gregory W; Frenz J; Cacia J; Kornfeld S
AN 97382270 MEDLINE

L50 ANSWER 29 OF 140 MEDLINE on STN DUPLICATE 22
TI Several cooperating binding sites mediate the interaction of a lysosomal enzyme with phosphotransferase.
SO EMBO JOURNAL, (1997 Nov 17) 16 (22) 6684-93.
Journal code: 8208664. ISSN: 0261-4189.
AU Tikkanen R; Peltola M; Oinonen C; Rouvinen J; Peltonen L
AN 1998031896 MEDLINE

L50 ANSWER 30 OF 140 MEDLINE on STN DUPLICATE 23

TI Flow cytometric sorting and biochemical characterization of the late endosomal rab7-containing compartment.
SO ELECTROPHORESIS, (1997 Dec) 18 (14) 2682-8.
Journal code: 8204476. ISSN: 0173-0835.
AU Meresse S; Andre P; Mishal Z; Barad M; Brun N; Desjardins M; Gorvel J P
AN 1998138985 MEDLINE

L50 ANSWER 31 OF 140 MEDLINE on STN DUPLICATE 24
TI Differential sorting of lysosomal enzymes out of the regulated secretory pathway in pancreatic beta-cells..
SO JOURNAL OF CELL BIOLOGY, (1997 May 5) 137 (3) 595-608.
Journal code: 0375356. ISSN: 0021-9525.
AU Kuliawat R; Klumperman J; Ludwig T; Arvan P
AN 97296330 MEDLINE

L50 ANSWER 32 OF 140 MEDLINE on STN DUPLICATE 25
TI Phosphatidylinositol 3-kinase is not required for recycling of **mannose** 6-phosphate receptors from late endosomes to the trans-Golgi network.
SO MOLECULAR BIOLOGY OF THE CELL, (1997 Apr) 8 (4) 577-82.
Journal code: 9201390. ISSN: 1059-1524.
AU Nakajima Y; Pfeffer S R
AN 97390804 MEDLINE

L50 ANSWER 33 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Disorders of glycoprotein degradation: sialidosis, fucosidosis, alpha-mannosidosis, beta-mannosidosis, and aspartylglycosaminuria
SO Molecular and Genetic Basis of Neurological Disease (2nd Edition) (1997), 355-369. Editor(s): Rosenberg, Roger N. Publisher: Butterworth-Heinemann, Boston, Mass.
CODEN: 64KBAL
AU Johnson, William G.
AN 1997:338576 HCAPLUS
DN 127:16003

L50 ANSWER 34 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 26
TI Physiology and pathophysiology of cell organelles: 2. Lysosomes: B. Pathology and physiology of lysosomes.
SO Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie, (1997) Vol. 16, No. 2, pp. 56-64.
ISSN: 0254-3486.
AU Theron, J. J. (1); Claassen, N.; Panzer, A.; Lizamore, N.
AN 1997:498323 BIOSIS

L50 ANSWER 35 OF 140 MEDLINE on STN DUPLICATE 27
TI Bovine UDP-N-acetylglucosamine:lysosomal-enzyme N-acetylglucosamine-1-phosphotransferase. I. Purification and subunit structure.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Dec 6) 271 (49) 31437-45.
Journal code: 2985121R. ISSN: 0021-9258.
AU Bao M; Booth J L; Elmendorf B J; Canfield W M
AN 97094921 MEDLINE

L50 ANSWER 36 OF 140 MEDLINE on STN DUPLICATE 28
TI The biogenesis of the MHC class II compartment in human I-cell disease B lymphoblasts.
SO JOURNAL OF CELL BIOLOGY, (1996 Mar) 132 (5) 769-85.
Journal code: 0375356. ISSN: 0021-9525.
AU Glickman J N; Morton P A; Slot J W; Kornfeld S; Geuze H J
AN 96180273 MEDLINE

L50 ANSWER 37 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI Protein sorting and clathrin-coated vesicle formation in the trans-Golgi network.

SO Biochemical Society Transactions, (1996) Vol. 24, No. 4, pp. 586S.
Meeting Info.: 4th International Union of Biochemistry and Molecular Biology Conference Edinburgh, Scotland, UK July 14-17, 1996
ISSN: 0300-5127.
AU Hoflack, Bernard
AN 1997:137145 BIOSIS

L50 ANSWER 38 OF 140 MEDLINE on STN DUPLICATE 29
TI Mouse mutants lacking the type 2 IGF receptor (IGF2R) are rescued from perinatal lethality in Igf2 and Igf1r null backgrounds.
SO DEVELOPMENTAL BIOLOGY, (1996 Aug 1) 177 (2) 517-35.
Journal code: 0372762. ISSN: 0012-1606.
AU Ludwig T; Eggenschwiler J; Fisher P; D'Ercole A J; Davenport M L; Efstratiadis A
AN 96400452 MEDLINE

L50 ANSWER 39 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 30
TI PROPERTIES OF THE ENDOSOMAL-LYSOSOMAL SYSTEM IN THE HUMAN CENTRAL-NERVOUS-SYSTEM - DISTURBANCES MARK MOST NEURONS IN POPULATIONS AT RISK TO DEGENERATE IN ALZHEIMERS-DISEASE
SO JOURNAL OF NEUROSCIENCE, (01 JAN 1996) Vol. 16, No. 1, pp. 186-199.
ISSN: 0270-6474.
AU CATALDO A M (Reprint); HAMILTON D J; BARNETT J L; PASKEVICH P A; NIXON R A
AN 96:39435 SCISEARCH

L50 ANSWER 40 OF 140 MEDLINE on STN
TI **Lysosomal hydrolases** have specific conformational domains for acquisition of **mannose**-6-phosphate.
SO NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE, (1995 Dec) 53 (12) 2892-7. Ref: 18
Journal code: 0420546. ISSN: 0047-1852.
AU Himeno M; Tanaka Y
AN 96124610 MEDLINE

L50 ANSWER 41 OF 140 MEDLINE on STN DUPLICATE 31
TI Biosynthesis and processing of lysosomal cathepsin D in primary cultures of rat hepatocytes.
SO BIOLOGICAL AND PHARMACEUTICAL BULLETIN, (1995 Jun) 18 (6) 825-8.
Journal code: 9311984. ISSN: 0918-6158.
AU Nishimura Y; Kato K; Furuno K; Himeno M
AN 96044613 MEDLINE

L50 ANSWER 42 OF 140 MEDLINE on STN DUPLICATE 32
TI Wortmannin causes mistargeting of procathepsin D. evidence for the involvement of a phosphatidylinositol 3-kinase in vesicular transport to lysosomes.
SO JOURNAL OF CELL BIOLOGY, (1995 Aug) 130 (4) 797-805.
Journal code: 0375356. ISSN: 0021-9525.
AU Davidson H W
AN 95370356 MEDLINE

L50 ANSWER 43 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI IMMUNOCYTOCHEMICAL LOCALIZATION OF SOME **LYSOSOMAL HYDROLASES**, THEIR PRESENCE IN LUMINAL FLUID AND THEIR DIRECTIONAL SECRETION BY HUMAN EPIDIDYMAL CELLS IN CULTURE
SO CELL AND TISSUE RESEARCH, (MAY 1995) Vol. 280, No. 2, pp. 415-425.
ISSN: 0302-766X.
AU RACZEK S; YEUNG C H; HASILIK A; ROBENEK H; HERTLE L; SCHULZE H; COOPER T G (Reprint)
AN 95:288069 SCISEARCH

L50 ANSWER 44 OF 140 MEDLINE on STN DUPLICATE 33
TI Intracellular sorting of aspartylglucosaminidase: the role of N-linked

oligosaccharides and evidence of Man-6-P-independent lysosomal targeting.
SO DNA AND CELL BIOLOGY, (1995 Apr) 14 (4) 305-12.
Journal code: 9004522. ISSN: 1044-5498.
AU Tikkanen R; Enomaa N; Riikonen A; Ikonen E; Peltonen L
AN 95225977 MEDLINE

L50 ANSWER 45 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 34
TI ROLES FOR **MANNOSE**-6-PHOSPHATE RECEPTORS IN LYSOSOMAL-ENZYME SORTING, IGF-II BINDING AND CLATHRIN-COAT ASSEMBLY
SO TRENDS IN CELL BIOLOGY, (MAY 1995) Vol. 5, No. 5, pp. 202-206.
ISSN: 0962-8924.
AU LUDWIG T (Reprint); LEBORGNE R; HOFLACK B
AN 95:313575 SCISEARCH

L50 ANSWER 46 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 35
TI A **MANNOSE** RECEPTOR MEDIATES MANNOSYL-RICH GLYCOPROTEIN-INDUCED MITOGENESIS IN BOVINE AIRWAY SMOOTH-MUSCLE CELLS
SO JOURNAL OF CLINICAL INVESTIGATION, (NOV 1994) Vol. 94, No. 5, pp. 1855-1863.
ISSN: 0021-9738.
AU LEW D B (Reprint); SONGUMIZE E; PONTOW S E; STAHL P D; RATTAZZI M C
AN 94:728749 SCISEARCH

L50 ANSWER 47 OF 140 MEDLINE on STN DUPLICATE 36
TI Overexpression of the human lysosomal enzyme alpha-L-iduronidase in Chinese hamster ovary cells.
SO PROTEIN EXPRESSION AND PURIFICATION, (1994 Jun) 5 (3) 225-32.
Journal code: 9101496. ISSN: 1046-5928.
AU Kakkis E D; Matynia A; Jonas A J; Neufeld E F
AN 95037699 MEDLINE

L50 ANSWER 48 OF 140 MEDLINE on STN
TI Distinct molecular mechanisms for protein sorting within immature secretory granules of pancreatic beta-cells.
SO JOURNAL OF CELL BIOLOGY, (1994 Jul) 126 (1) 77-86.
Journal code: 0375356. ISSN: 0021-9525.
AU Kuliawat R; Arvan P
AN 94299652 MEDLINE

L50 ANSWER 49 OF 140 MEDLINE on STN DUPLICATE 37
TI Mouse procathepsin L lacking a functional glycosylation site is properly folded, stable, and secreted by NIH 3T3 cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 May 25) 268 (15) 11456-62.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kane S E
AN 93266607 MEDLINE

L50 ANSWER 50 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Biosynthetic targeting pathway of lysosomal membrane glycoproteins
SO Trends in Glycoscience and Glycotechnology (1993), 5(26), 438-49
CODEN: TGGLEE; ISSN: 0915-7352
AU Nabi, I. R.
AN 1994:263881 HCAPLUS
DN 120:263881

L50 ANSWER 51 OF 140 MEDLINE on STN DUPLICATE 38
TI Estrogen and insulin modulation of intracellular insulin-like growth factor binding proteins in human breast cancer cells: possible involvement in **lysosomal hydrolases** oversecretion.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1993 Apr 15) 192 (1) 295-301.
Journal code: 0372516. ISSN: 0006-291X.

AU Dubois V; Couissi D; Schonne E; Schneider Y J; Remacle C; Trouet A
AN 93236587 MEDLINE

L50 ANSWER 52 OF 140 MEDLINE on STN DUPLICATE 39
TI Lysosomal enzyme phosphorylation. I. Protein recognition determinants in both lobes of procathepsin D mediate its interaction with UDP-GlcNAc:lysosomal enzyme N-acetylglucosamine-1-phosphotransferase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1992 Nov 15) 267 (32) 23342-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Baranski T J; Cantor A B; Kornfeld S
AN 93054671 MEDLINE

L50 ANSWER 53 OF 140 MEDLINE on STN DUPLICATE 40
TI Intracellular trafficking and the parasitophorous vacuole of Leishmania mexicana-infected macrophages.
SO JOURNAL OF CELL SCIENCE, (1992 Dec) 103 (Pt 4) 1193-210.
Journal code: 0052457. ISSN: 0021-9533.
AU Russell D G; Xu S; Chakraborty P
AN 93139144 MEDLINE

L50 ANSWER 54 OF 140 MEDLINE on STN DUPLICATE 41
TI Human serum amyloid P is a multispecific adhesive protein whose ligands include 6-phosphorylated **mannose** and the 3-sulphated saccharides galactose, N-acetylgalactosamine and glucuronic acid.
SO EMBO JOURNAL, (1992 Mar) 11 (3) 813-9.
Journal code: 8208664. ISSN: 0261-4189.
AU Loveless R W; Floyd-O'Sullivan G; Raynes J G; Yuen C T; Feizi T
AN 92192014 MEDLINE

L50 ANSWER 55 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Transport from late endosomes to trans-Golgi network in semiintact cell extracts
SO Methods in Enzymology (1992), 219(Reconstitution of Intracellular Transport), 153-9
CODEN: MENZAU; ISSN: 0076-6879
AU Goda, Yukiko; Soldati, Thierry; Pfeffer, Suzanne R.
AN 1993:208903 HCAPLUS
DN 118:208903

L50 ANSWER 56 OF 140 MEDLINE on STN DUPLICATE 42
TI Mapping and molecular modeling of a recognition domain for lysosomal enzyme targeting.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991 Dec 5) 266 (34) 23365-72.
Journal code: 2985121R. ISSN: 0021-9258.
AU Baranski T J; Koelsch G; Hartsuck J A; Kornfeld S
AN 92078213 MEDLINE

L50 ANSWER 57 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI ACCUMULATION OF INDIGESTIBLE SUBSTANCES REDUCES FUSION COMPETENCE OF MACROPHAGE LYSOSOMES
SO JOURNAL OF IMMUNOLOGY, (1991) Vol. 147, No. 9, pp. 3087-3095.
AU MONTGOMERY R R (Reprint); WEBSTER P; MELLMAN I
AN 91:589240 SCISEARCH

L50 ANSWER 58 OF 140 MEDLINE on STN DUPLICATE 43
TI Glycosidase inhibitors: inhibitors of N-linked oligosaccharide processing.
SO FASEB JOURNAL, (1991 Dec) 5 (15) 3055-63. Ref: 60
Journal code: 8804484. ISSN: 0892-6638.
AU Elbein A D
AN 92077332 MEDLINE

L50 ANSWER 59 OF 140 MEDLINE on STN DUPLICATE 44
TI Mitogenic effect of **lysosomal hydrolases** on bovine tracheal myocytes in culture.

SO JOURNAL OF CLINICAL INVESTIGATION, (1991 Dec) 88 (6) 1969-75.
Journal code: 7802877. ISSN: 0021-9738.
AU Lew D B; Rattazzi M C
AN 92091507 MEDLINE

L50 ANSWER 60 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI **Mannose** 6-phosphate receptor independent targeting of lysosomal enzymes
SO Cell Biology International Reports (1991), 15(12), 1167-73
CODEN: CBRPDS; ISSN: 0309-1651
AU Ginsel, Leo A.; Fransen, Jack A. M.
AN 1992:146483 HCAPLUS
DN 116:146483

L50 ANSWER 61 OF 140 MEDLINE on STN DUPLICATE 45
TI Polarized sorting of GPI-linked proteins in epithelia and membrane microdomains.
SO CELL BIOLOGY INTERNATIONAL REPORTS, (1991 Nov) 15 (11) 1023-49. Ref: 96
Journal code: 7708050. ISSN: 0309-1651.
AU Lisanti M P; Rodriguez-Boulan E
AN 92145747 MEDLINE

L50 ANSWER 62 OF 140 MEDLINE on STN DUPLICATE 46
TI Elevated carbohydrate phosphotransferase activity in human hepatoma and phosphorylation of cathepsin D.
SO BRITISH JOURNAL OF CANCER, (1991 Jun) 63 (6) 905-8.
Journal code: 0370635. ISSN: 0007-0920.
AU Ohhira M; Gasa S; Makita A; Sekiya C; Namiki M
AN 91299484 MEDLINE

L50 ANSWER 63 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI ELEVATED CARBOHYDRATE PHOSPHOTRANSFERASE ACTIVITY IN HUMAN HEPATOMA AND PHOSPHORYLATION OF CATHEPSIN-D
SO BRITISH JOURNAL OF CANCER, (1991) Vol. 63, No. 6, pp. 905-908.
AU OHHIRA M; GASA S (Reprint); MAKITA A; SEKIYA C; NAMIKI M
AN 91:384702 SCISEARCH

L50 ANSWER 64 OF 140 MEDLINE on STN DUPLICATE 47
TI Late endosomes derive from early endosomes by maturation.
SO CELL, (1991 May 3) 65 (3) 417-27.
Journal code: 0413066. ISSN: 0092-8674.
AU Stoorvogel W; Strous G J; Geuze H J; Oorschot V; Schwartz A L
AN 91208678 MEDLINE

L50 ANSWER 65 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI LATE ENDOSOMES DERIVE FROM EARLY ENDOSOMES BY MATURATION
SO CELL, (1991) Vol. 65, No. 3, pp. 417-427.
AU STOORVOGEL W (Reprint); STROUS G J; GEUZE H J; OORSCHOT V; SCHWARTZ A L
AN 91:264083 SCISEARCH

L50 ANSWER 66 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 48
TI MITOGENIC EFFECT OF **LYSOSOMAL HYDROLASES** ON BOVINE TRACHEAL MYOCYTES (BTM) IS MEDIATED VIA **MANNOSE**-RECOGNIZING RECEPTOR
SO PEDIATRIC RESEARCH, (1991) Vol. 29, No. 4, pp. A160.
AU LEW B D (Reprint); SONGUMIZE E; OELLERICH W; RATTAZZI M C
AN 91:201007 SCISEARCH

L50 ANSWER 67 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Preferential inhibition of lysosomal beta-mannosidase by sucrose
SO Enzyme (1991), 43(3), 137-45
CODEN: ENZYBT; ISSN: 0013-9432
AU McCabe, Norah R.; Biliter, Wendy; Dawson, Glyn

AN 1991:224160 HCAPLUS
DN 114:224160

L50 ANSWER 68 OF 140 MEDLINE on STN DUPLICATE 49
TI Synthesis and processing of lysosomal alpha-fucosidase in cultured human fibroblasts.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1991 Jan 23) 1073 (1) 120-8.
Journal code: 0217513. ISSN: 0006-3002.
AU Johnson K F; Hancock L W; Dawson G
AN 91120799 MEDLINE

L50 ANSWER 69 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 50
TI CHANGES IN SERUM LYSOSOMAL-ENZYMES IN THE VITAMIN-B6-DEFICIENT WEANLING RAT
SO NUTRITION RESEARCH, (1991) Vol. 11, No. 1, pp. 117-128.
AU FABER C N; DIVEN W F; AXELROD A E; GLEW R H (Reprint)
AN 91:121865 SCISEARCH

L50 ANSWER 70 OF 140 MEDLINE on STN DUPLICATE 51
TI Acidification-dependent dissociation of endocytosed insulin precedes that of endocytosed proteins bearing the **mannose** 6-phosphate recognition marker.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1990 May 25) 265 (15) 8497-504.
Journal code: 2985121R. ISSN: 0021-9258.
AU Borden L A; Einstein R; Gabel C A; Maxfield F R
AN 90256766 MEDLINE

L50 ANSWER 71 OF 140 MEDLINE on STN DUPLICATE 52
TI Function of oligosaccharide modification in glucocerebrosidase, a membrane-associated **lysosomal hydrolase**.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1990 Aug 17) 191 (3) 669-77.
Journal code: 0107600. ISSN: 0014-2956.
AU Van Weely S; Aerts J M; Van Leeuwen M B; Heikoop J C; Donker-Koopman W E; Barranger J A; Tager J M; Schram A W
AN 90361052 MEDLINE

L50 ANSWER 72 OF 140 MEDLINE on STN DUPLICATE 53
TI Carbohydrate phosphotransferase in human hepatoma and phosphorylation of cathepsin D.
SO HOKKAIDO IGAKU ZASSHI. HOKKAIDO JOURNAL OF MEDICAL SCIENCE, (1990 Nov) 65 (6) 560-7.
Journal code: 17410290R. ISSN: 0367-6102.
AU Ohhira M
AN 91092583 MEDLINE

L50 ANSWER 73 OF 140 MEDLINE on STN DUPLICATE 54
TI Biosynthesis, processing, and intracellular transport of lysosomal acid phosphatase in rat hepatocytes.
SO JOURNAL OF BIOCHEMISTRY, (1990 Aug) 108 (2) 278-86.
Journal code: 0376600. ISSN: 0021-924X.
AU Tanaka Y; Harada R; Himeno M; Kato K
AN 91035360 MEDLINE

L50 ANSWER 74 OF 140 MEDLINE on STN DUPLICATE 55
TI Preferential inhibition of lysosomal beta-mannosidase by sucrose.
SO ENZYME, (1990) 43 (3) 137-45.
Journal code: 1262265. ISSN: 0013-9432.
AU McCabe N R; Biliter W; Dawson G
AN 91249762 MEDLINE

L50 ANSWER 75 OF 140 MEDLINE on STN DUPLICATE 56
TI Mechanism for selective secretion of a lysosomal protease by transformed mouse fibroblasts.

SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 May 5) 264 (13) 7377-83.
Journal code: 2985121R. ISSN: 0021-9258.
AU Dong J M; Prence E M; Sahagian G G
AN 89214177 MEDLINE

L50 ANSWER 76 OF 140 MEDLINE on STN DUPLICATE 57
TI Endolyn-78, a membrane glycoprotein present in morphologically diverse components of the endosomal and lysosomal compartments: implications for lysosome biogenesis.
SO JOURNAL OF CELL BIOLOGY, (1989 May) 108 (5) 1597-613.
Journal code: 0375356. ISSN: 0021-9525.
AU Croze E; Ivanov I E; Kreibich G; Adesnik M; Sabatini D D; Rosenfeld M G
AN 89234150 MEDLINE

L50 ANSWER 77 OF 140 MEDLINE on STN DUPLICATE 58
TI Posttranslational processing of human lysosomal acid beta-glucosidase: a continuum of defects in Gaucher disease type 1 and type 2 fibroblasts.
SO AMERICAN JOURNAL OF HUMAN GENETICS, (1989 May) 44 (5) 741-50.
Journal code: 0370475. ISSN: 0002-9297.
AU Bergmann J E; Grabowski G A
AN 89205558 MEDLINE

L50 ANSWER 78 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI BIOCHEMICAL STUDIES OF LYSOSOMAL ENZYMES IN TETRAHYMENA CELLS PROCESSING AND SECRETION MECHANISM OF ACID ALPHA GLUCOSIDASE.
SO ACTA SCH MED UNIV GIFU, (1989) 37 (3), 619-648.
CODEN: GDIKAN. ISSN: 0072-4521.
AU SASAKI N
AN 1990:156361 BIOSIS

L50 ANSWER 79 OF 140 MEDLINE on STN
TI [I-cell disease: elucidation of the enzyme defect and its molecular biology significance].
"I-cel" ziekte: opheldering van het enzymdefect en haar celbiologische betekenis.
SO VERHANDELINGEN - KONINKLIJKE ACADEMIE VOOR GENEESKUNDE VAN BELGIE, (1989) 51 (3) 231-67. Ref: 119
Journal code: 0413210. ISSN: 0302-6469.
AU Leroy J G
AN 90071016 MEDLINE

L50 ANSWER 80 OF 140 MEDLINE on STN DUPLICATE 59
TI Lysosomal integral membrane glycoproteins are expressed at high levels in the inclusion bodies of I-cell disease fibroblasts.
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1989 May 15) 271 (1) 157-67.
Journal code: 0372430. ISSN: 0003-9861.
AU Sandoval I V; Chen J W; Yuan L; August J T
AN 89227193 MEDLINE

L50 ANSWER 81 OF 140 MEDLINE on STN DUPLICATE 60
TI **Mannose** 6-phosphate receptor in porcine thyroid follicle cells. Localization and possible implications for the intracellular transport of thyroglobulin.
SO EUROPEAN JOURNAL OF CELL BIOLOGY, (1989 Jun) 49 (1) 140-8.
Journal code: 7906240. ISSN: 0171-9335.
AU Scheel G; Herzog V
AN 89338429 MEDLINE

L50 ANSWER 82 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Biosynthesis of the **mannose** 6-phosphate recognition marker in transport-impaired mouse lymphoma cells. Demonstration of a two-step phosphorylation
SO Journal of Biological Chemistry (1988), 263(21), 10118-26
CODEN: JBCHA3; ISSN: 0021-9258

AU Lazzarino, Deborah A.; Gabel, Christopher A.
AN 1988:470961 HCAPLUS
DN 109:70961

L50 ANSWER 83 OF 140 MEDLINE on STN DUPLICATE 61
TI Phosphomannosyl receptors of lysosomal enzymes of skeletal muscle in neuromuscular diseases.
SO ACTA NEUROLOGICA SCANDINAVICA, (1988 Jun) 77 (6) 461-7.
Journal code: 0370336. ISSN: 0001-6314.
AU Salminen A; Marjomaki V; Tolonen U; Myllyla V V
AN 88306746 MEDLINE

L50 ANSWER 84 OF 140 MEDLINE on STN DUPLICATE 62
TI Biochemical studies on lymphoblastoid cells with inherited N-acetyl-glucosamine 1-phosphotransferase deficiency (I-cell disease).
SO BIOCHEMISTRY INTERNATIONAL, (1988 Aug) 17 (2) 375-83.
Journal code: 8100311. ISSN: 0158-5231.
AU Okada S; Handa M; Hashimoto T; Nishimoto J; Inui K; Furukawa M; Furuyama J; Yabuuchi H; Tate M; Gasa S; +
AN 89050227 MEDLINE

L50 ANSWER 85 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 63
TI INTRACELLULAR TRANSPORT OF THE **MANNOSE**-6-PHOSPHATE RECEPTOR.
SO MORRE, D. J., ET AL. (ED.). PROGRESS IN CLINICAL AND BIOLOGICAL RESEARCH, VOL. 270. CELL-FREE ANALYSIS OF MEMBRANE TRAFFIC; CONFERENCE, HEIDELBERG, WEST GERMANY, OCTOBER 1-4, 1986. XX+460P. ALAN R. LISS, INC.: NEW YORK, NEW YORK, USA. ILLUS. (1988) 0 (0), 365-376.
CODEN: PCBRD2. ISSN: 0361-7742. ISBN: 0-8451-5120-7.
AU PFEFFER S R; GODA Y; CHEGE N W
AN 1988:451555 BIOSIS

L50 ANSWER 86 OF 140 MEDLINE on STN DUPLICATE 64
TI Properties of a plasma membrane-associated cathepsin B-like cysteine proteinase in metastatic B16 melanoma variants.
SO CANCER RESEARCH, (1987 Dec 15) 47 (24 Pt 1) 6620-8.
Journal code: 2984705R. ISSN: 0008-5472.
AU Rozhin J; Robinson D; Stevens M A; Lah T T; Honn K V; Ryan R E; Sloane B F
AN 88052651 MEDLINE

L50 ANSWER 87 OF 140 MEDLINE on STN DUPLICATE 65
TI The role of lysosomal enzymes in killing of mammalian cells by the lysosomotropic detergent N-dodecylimidazole.
SO JOURNAL OF CELL BIOLOGY, (1987 May) 104 (5) 1223-9.
Journal code: 0375356. ISSN: 0021-9525.
AU Wilson P D; Firestone R A; Lenard J
AN 87195030 MEDLINE

L50 ANSWER 88 OF 140 MEDLINE on STN DUPLICATE 66
TI Phosphorylation, glycosylation, and proteolytic activity of the 52-kD estrogen-induced protein secreted by MCF7 cells.
SO JOURNAL OF CELL BIOLOGY, (1987 Feb) 104 (2) 253-62.
Journal code: 0375356. ISSN: 0021-9525.
AU Capony F; Morisset M; Barrett A J; Capony J P; Broquet P; Vignon F; Chambon M; Louisot P; Rochefort H
AN 87109449 MEDLINE

L50 ANSWER 89 OF 140 MEDLINE on STN DUPLICATE 67
TI The endosomal concentration of a **mannose** 6-phosphate receptor is unchanged in the absence of ligand synthesis.
SO JOURNAL OF CELL BIOLOGY, (1987 Jul) 105 (1) 229-34.
Journal code: 0375356. ISSN: 0021-9525.
AU Pfeffer S R
AN 87280359 MEDLINE

L50 ANSWER 90 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Immunoelectron microscopical localization of **lysosomal hydrolases** in normal and I-cell fibroblasts
SO Methodological Surveys in Biochemistry and Analysis (1987), 17(Cells, Membr., Dis., Incl. Renal), 135-7
CODEN: MSBADU; ISSN: 0748-6715
AU Willemsen, R.; Hoogeveen, A. T.; Reuser, A. J. J.; Van Dongen, J. M.
AN 1988:436112 HCAPLUS
DN 109:36112

L50 ANSWER 91 OF 140 MEDLINE on STN
TI [Characteristics of biogenesis and substrate specificity of lysosomal glycosidases under normal conditions and in glycosidoses]. Osobennosti biogeneza i substratnoi spetsifichnosti lizosomnykh glikozidaz cheloveka v norme i pri glikozidozakh.
SO VOPROSY MEDITSINSKOI KHIMII, (1987 Sep-Oct) 33 (5) 24-33. Ref: 55
Journal code: 0416601. ISSN: 0042-8809.
AU Vidershain G Ia
AN 88072195 MEDLINE

L50 ANSWER 92 OF 140 MEDLINE on STN DUPLICATE 68
TI Nucleotide sequence of rat preputial gland beta-glucuronidase cDNA and in vitro insertion of its encoded polypeptide into microsomal membranes.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1986 Oct) 83 (19) 7292-6.
Journal code: 7505876. ISSN: 0027-8424.
AU Nishimura Y; Rosenfeld M G; Kreibich G; Gubler U; Sabatini D D; Adesnik M; Andy R
AN 87016933 MEDLINE

L50 ANSWER 93 OF 140 MEDLINE on STN DUPLICATE 69
TI **Lysosomal hydrolases** in blood-derived macrophages of patients with I-cell disease.
SO JOURNAL OF LABORATORY AND CLINICAL MEDICINE, (1986 Oct) 108 (4) 365-8.
Journal code: 0375375. ISSN: 0022-2143.
AU Yatziv S; Barfi G; Newburg D S
AN 87010242 MEDLINE

L50 ANSWER 94 OF 140 MEDLINE on STN DUPLICATE 70
TI Endocytosis of **mannose**-6-phosphate binding sites by mouse T-lymphoma cells.
SO JOURNAL OF CELLULAR PHYSIOLOGY, (1986 Apr) 127 (1) 146-61.
Journal code: 0050222. ISSN: 0021-9541.
AU Bourguignon L Y; Balazovich K; Suchard S J; Hindsgaul O; Pierce M
AN 86168507 MEDLINE

L50 ANSWER 95 OF 140 MEDLINE on STN
TI Glucose phosphotransferase and intracellular trafficking.
SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (1986 Nov-Dec) 72 (1-2) 101-7.
Journal code: 0364456. ISSN: 0300-8177.
AU Marchase R B; Hiller A M
AN 87144213 MEDLINE

L50 ANSWER 96 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Preliminary characterization of a Chinese hamster ovary cell glycosylation mutant isolated by screening for low intracellular lysosomal enzyme activity
SO Molecular and Cellular Biochemistry (1986), 72(1-2), 35-45
CODEN: MCBIB8; ISSN: 0300-8177
AU Hall, Clara W.; Robbins, April R.; Krag, Sharon S.
AN 1987:117111 HCAPLUS
DN 106:117111

L50 ANSWER 97 OF 140 LIFESCI COPYRIGHT 2003 CSA on STN
TI Using recombinant DNA techniques to study protein targeting in the eucaryotic cell.
ANNUAL REVIEW OF CELL BIOLOGY.
SO (1985) vol. 1, pp. 403-445.
ISBN: 0-8243-3101-X.
AU Garoff, H.; Palade, G.E. [editor]; Alberts, B.M. [editor]; Spudich, J.A. [editor]
AN 85:86706 LIFESCI

L50 ANSWER 98 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI EXTRACELLULAR RELEASE OF **LYSOSOMAL HYDROLASES** IN RESPONSE TO **MANNOSE**-6-PHOSPHATE IN HUMAN RETINAL PIGMENTED EPITHELIUM.
SO TWENTY-FIFTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, ATLANTA, GA., USA, NOV. 18-22, 1985. J CELL BIOL. (1985) 101 (5 PART 2), 226A.
CODEN: JCLBA3. ISSN: 0021-9525.
AU WILCOX D K
AN 1986:41468 BIOSIS

L50 ANSWER 99 OF 140 MEDLINE on STN DUPLICATE 71
TI Dexamethasone increases expression of **mannose** receptors and decreases extracellular lysosomal enzyme accumulation in macrophages.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1985 Jan 10) 260 (1) 160-4.
Journal code: 2985121R. ISSN: 0021-9258.
AU Shepherd V L; Konish M G; Stahl P
AN 85080070 MEDLINE

L50 ANSWER 100 OF 140 MEDLINE on STN DUPLICATE 72
TI Two forms of acid alpha-D-mannosidase in monkey brain: evidence for the co-existence of high **mannose** and complex oligosaccharides in one form.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1984 Sep 28) 123 (3) 1185-93.
Journal code: 0372516. ISSN: 0006-291X.
AU Mathur R; Alvares K; Balasubramanian A S
AN 85022582 MEDLINE

L50 ANSWER 101 OF 140 MEDLINE on STN DUPLICATE 73
TI Five related Lebanese individuals with high plasma **lysosomal hydrolases**: a new defect in **mannose**-6-phosphate receptor recognition?.
SO AMERICAN JOURNAL OF HUMAN GENETICS, (1984 Sep) 36 (5) 1001-14.
Journal code: 0370475. ISSN: 0002-9297.
AU Alexander D; Dudin G; Talj F; Bitar F; Deeb M; Khudr A; Abboud M; Der Kaloustian V M
AN 85043783 MEDLINE

L50 ANSWER 102 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI 5 RELATED LEBANESE INDIVIDUALS WITH HIGH PLASMA **LYSOSOMAL HYDROLASES** - A NEW DEFECT IN **MANNOSE**-6-PHOSPHATE RECEPTOR RECOGNITION
SO AMERICAN JOURNAL OF HUMAN GENETICS, (1984) Vol. 36, No. 5, pp. 1001-1014.
AU ALEXANDER D (Reprint); DUDIN G; TALJ F; BITAR F; DEEB M; KHUDR A; ABBOUD M; DERKALOUSTIAN V M
AN 84:596831 SCISEARCH

L50 ANSWER 103 OF 140 MEDLINE on STN DUPLICATE 74
TI **Mannose**-specific oligosaccharide recognition by mononuclear phagocytes.
SO BIOLOGY OF THE CELL, (1984) 51 (2) 215-8.
Journal code: 8108529. ISSN: 0248-4900.
AU Stahl P D; Wileman T E; Diment S; Shepherd V L

AN 85098320 MEDLINE

L50 ANSWER 104 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Evidence for a **mannose** 6-phosphate-independent pathway for lysosomal enzyme targeting
SO Mol. Basis Lysosomal Storage Disord., [Proc. Conf.] (1984), Meeting Date 1983, 175-93. Editor(s): Barranger, John A.; Brady, Roscoe O. Publisher: Academic, Orlando, Fla.
CODEN: 53OHA7
AU Gabel, Christopher A.; Goldberg, Daniel E.; Kornfeld, Stuart
AN 1985:201574 HCAPLUS
DN 102:201574

L50 ANSWER 105 OF 140 MEDLINE on STN DUPLICATE 75
TI The effects of sucrose loading on **lysosomal hydrolases**
.
SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (1984) 60 (1) 83-98.
Journal code: 0364456. ISSN: 0300-8177.
AU Kato T; Okada S; Yutaka T; Yabuuchi H
AN 84167818 MEDLINE

L50 ANSWER 106 OF 140 MEDLINE on STN DUPLICATE 76
TI Raman and infrared studies of homogeneous forms of acid phosphatase from rat liver.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1984 Oct 9) 790 (1) 70-7.
Journal code: 0217513. ISSN: 0006-3002.
AU Twardowski J; Nowak I; Stufkens D J; Snoeck T L
AN 85000572 MEDLINE

L50 ANSWER 107 OF 140 LIFESCI COPYRIGHT 2003 CSA on STN
TI **Mannose**-specific oligosaccharide recognition by mononuclear phagocytes.
THE ROLE OF CARBOHYDRATES IN CELL RECOGNITION. ENDOGENOUS LECTINS.
SO BIOL. CELL., (1984) pp. 215-218. Special issue..
Meeting Info.: International Meeting on the Role of Carbohydrates in Cell Recognition. Endogenous Lectins. Aussois (France). 18-24 Mar 1984.
AU Stahl, P.D.; Wileman, T.E.; Diment, S.; Shepherd, V.L.; Monsigny, M. [editor]
AN 84:98227 LIFESCI

L50 ANSWER 108 OF 140 MEDLINE on STN
TI Glycoproteins: their structure, biosynthesis and possible clinical implications.
SO CLINICAL BIOCHEMISTRY, (1984 Feb) 17 (1) 3-14. Ref: 41
Journal code: 0133660. ISSN: 0009-9120.
AU Schachter H
AN 84157064 MEDLINE

L50 ANSWER 109 OF 140 MEDLINE on STN DUPLICATE 77
TI Lysosomal arylsulfatases of human leukocytes: increment of phosphorylated B variants in chronic myelogenous leukemia.
SO CANCER RESEARCH, (1983 Nov) 43 (11) 5618-22.
Journal code: 2984705R. ISSN: 0008-5472.
AU Uehara Y; Gasa S; Makita A; Sakurada K; Miyazaki T
AN 84001996 MEDLINE

L50 ANSWER 110 OF 140 MEDLINE on STN DUPLICATE 78
TI Mutant Chinese hamster ovary cells pleiotropically defective in receptor-mediated endocytosis.
SO JOURNAL OF CELL BIOLOGY, (1983 Apr) 96 (4) 1064-71.
Journal code: 0375356. ISSN: 0021-9525.
AU Robbins A R; Peng S S; Marshall J L
AN 83161340 MEDLINE

L50 ANSWER 111 OF 140 MEDLINE on STN DUPLICATE 79
TI Recognition and receptor-mediated uptake of phosphorylated high **mannose**-type oligosaccharides by cultured human fibroblasts.
SO JOURNAL OF CELL BIOLOGY, (1983 Mar) 96 (3) 915-9.
Journal code: 0375356. ISSN: 0021-9525.
AU Natowicz M; Hallett D W; Frier C; Chi M; Schlesinger P H; Baenziger J U
AN 83161332 MEDLINE

L50 ANSWER 112 OF 140 MEDLINE on STN DUPLICATE 80
TI Identification and characterization of cells deficient in the **mannose** 6-phosphate receptor: evidence for an alternate pathway for lysosomal enzyme targeting.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1983 Feb) 80 (3) 775-9.
Journal code: 7505876. ISSN: 0027-8424.
AU Gabel C A; Goldberg D E; Kornfeld S
AN 83144012 MEDLINE

L50 ANSWER 113 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI EXPRESSION OF **MANNOSE** PHOSPHATE RECEPTORS ON MONOCYTE DERIVED MACROPHAGES A POSSIBLE DIFFERENTIATION MARKER.
SO 23RD ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, SAN ANTONIO, TEX., USA, NOV. 29-DEC. 3, 1983. J CELL BIOL. (1983) 97 (5 PART 2), 429A.
CODEN: JCLBA3. ISSN: 0021-9525.
AU SHEPHARD V; STAHL P
AN 1984:111870 BIOSIS

L50 ANSWER 114 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Alterations of **lysosomal hydrolases** in human lung cancer
SO Gann Monograph on Cancer Research (1983), 29(Membr. Alterations Cancer), 231-40
CODEN: GMCRDC; ISSN: 0072-0151
AU Makita, Akira; Gasa, Shinsei; Narita, Masaki; Fujita, Michiyasu; Taniguchi, Naoyuki
AN 1983:610662 HCAPLUS
DN 99:210662

L50 ANSWER 115 OF 140 MEDLINE on STN DUPLICATE 81
TI Secretion by mononuclear phagocytes of **lysosomal hydrolases** bearing ligands for the **mannose**-6-phosphate receptor system of fibroblasts: evidence for a second mechanism of spontaneous secretion?.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1982 Apr 14) 105 (3) 922-7.
Journal code: 0372516. ISSN: 0006-291X.
AU Jessup W; Dean R T
AN 82231443 MEDLINE

L50 ANSWER 116 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI SECRETION BY MONONUCLEAR PHAGOCYTES OF **LYSOSOMAL HYDROLASES** BEARING LIGANDS FOR THE **MANNOSE**-6-PHOSPHATE RECEPTOR SYSTEM OF FIBROBLASTS - EVIDENCE FOR A 2ND MECHANISM OF SPONTANEOUS SECRETION
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1982) Vol. 105, No. 3, pp. 922-927.
AU JESSUP W (Reprint); DEAN R T
AN 82:196405 SCISEARCH

L50 ANSWER 117 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI INHIBITION OF NATURAL KILLER CELL AND SPECIFIC T CELL CYTO TOXICITY BY **MANNOSE** 6 PHOSPHATE.
SO 13TH ANNUAL MEETING OF THE SCANDINAVIAN SOCIETY FOR IMMUNOLOGY, UMEA, SWEDEN, JUNE 20-24, 1982. SCAND J IMMUNOL. (1982) 16 (5), 447.

CODEN: SJIMAX. ISSN: 0300-9475.
AU RAMSTEDT U; LANDEGREN U; AXBERG I; WIGZELL H
AN 1983:108812 BIOSIS

L50 ANSWER 118 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 82
TI MUCO LIPIDOSIS III BETA-N ACETYL-D HEXOSAMINIDASE A EC-3.2.1.52 PURIFICATION AND PROPERTIES.
SO BIOCHEM J, (1982) 207 (3), 421-428.
CODEN: BIJOAK. ISSN: 0306-3275.
AU KRESS B C; HIRANI S; FREEZE H H; LITTLE L; MILLER A L
AN 1983:269629 BIOSIS

L50 ANSWER 119 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI UPTAKE OF SWAINSONINE A SPECIFIC INHIBITOR OF ALPHA-D MANNOSIDASE INTO NORMAL HUMAN FIBROBLASTS IN CULTURE.
SO J CELL BIOCHEM, (1982) 21 (2), 107-118.
CODEN: JCEBD5. ISSN: 0730-2312.
AU CHOTAI K; JENNINGS C; WINCHESTER B; DORLING P
AN 1984:259759 BIOSIS

L50 ANSWER 120 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 83
TI TURNOVER OF 2 LYSOSOMAL ENZYMES IN MACROPHAGES.
SO J BIOL CHEM, (1981) 256 (19), 10137-10144.
CODEN: JBCHA3. ISSN: 0021-9258.
AU SKUDLAREK M D; SWANK R T
AN 1982:206266 BIOSIS

L50 ANSWER 121 OF 140 MEDLINE on STN DUPLICATE 84
TI Caprine beta-mannosidosis. Inherited deficiency of beta-D-mannosidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1981 May 25) 256 (10) 5185-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Jones M Z; Dawson G
AN 81191925 MEDLINE

L50 ANSWER 122 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 85
TI PURIFICATION AND CHARACTERIZATION OF I CELL DISEASE ALPHA-L FUCOSIDASE.
SO J BIOL CHEM, (1980) 255 (3), 955-961.
CODEN: JBCHA3. ISSN: 0021-9258.
AU KRESS B C; FREEZE H H; HERD J K; ALHADEFF J A; MILLER A L
AN 1980:245459 BIOSIS

L50 ANSWER 123 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 86
TI BINDING OF **LYSOSOMAL HYDROLASES** BY THE MEMBRANES OF RAT LIVER LYSOSOMES EVIDENCE FOR PHOSPHO MANNOSYL RECOGNITION MARKERS.
SO BIOCHEM BIOPHYS RES COMMUN, (1980) 95 (2), 644-649.
CODEN: BBRCA9. ISSN: 0006-291X.
AU BURNSIDE J; SCHNEIDER D L
AN 1980:277495 BIOSIS

L50 ANSWER 124 OF 140 MEDLINE on STN DUPLICATE 87
TI The role of extra-hepatic tissues in the receptor-mediated plasma clearance of glycoproteins terminated by **mannose** or N-acetylglucosamine.
SO BIOCHEMICAL JOURNAL, (1980 Nov 15) 192 (2) 597-606.
Journal code: 2984726R. ISSN: 0264-6021.
AU Schlesinger P H; Rodman J S; Doebber T W; Stahl P D; Lee Y C; Stowell C P; Kuhlenschmidt T B
AN 81207182 MEDLINE

L50 ANSWER 125 OF 140 MEDLINE on STN DUPLICATE 88

TI Purification and properties of two forms of human alpha-L-fucosidase.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1980 Aug 7) 614 (2) 476-88.
Journal code: 0217513. ISSN: 0006-3002.
AU Chien S F; Dawson G
AN 81000541 MEDLINE

L50 ANSWER 126 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 89
TI INTER CELLULAR EXCHANGE OF **LYSOSOMAL HYDROLASES**
BETWEEN MUTANT HUMAN FIBROBLASTS AND OTHER CELL TYPES.
SO EXP CELL RES,. (1980) 129 (2), 383-392.
CODEN: ECREAL. ISSN: 0014-4827.
AU HALLEY D J J; SACCHI N; D'AZZO A; REUSER A J J; GALJAARD H
AN 1981:180907 BIOSIS

L50 ANSWER 127 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 90
TI RICIN LINKED TO MONO PHOSPHO PENTA **MANNOSE** BINDS TO FIBROBLAST
LYSOSOMAL HYDROLASE RECEPTORS RESULTING IN A CELL TYPE
SPECIFIC TOXIN.
SO PROC NATL ACAD SCI U S A, (1979) 76 (11), 5559-5562.
CODEN: PNASA6. ISSN: 0027-8424.
AU YOULE R J; MURRAY G J; NEVILLE D M JR
AN 1980:184155 BIOSIS

L50 ANSWER 128 OF 140 MEDLINE on STN
TI Enzymatic identification of **mannose** 6-phosphate on the
recognition marker for receptor-mediated pinocytosis of beta-glucuronidase
by human fibroblasts.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
AMERICA, (1979 Sep) 76 (9) 4322-6.
Journal code: 7505876. ISSN: 0027-8424.
AU Natowicz M R; Chi M M; Lowry O H; Sly W S
AN 80056730 MEDLINE

L50 ANSWER 129 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 91
TI ISOLATION OF LYSOSOMAL ALPHA MANNOSIDASE MUTANTS OF CHINESE HAMSTER OVARY
CELLS.
SO PROC NATL ACAD SCI U S A, (1979) 76 (4), 1911-1915.
CODEN: PNASA6. ISSN: 0027-8424.
AU ROBBINS A R
AN 1979:232092 BIOSIS

L50 ANSWER 130 OF 140 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS
RESERVED. on STN DUPLICATE 92
TI Extracellular accumulation of **lysosomal hydrolases**
from astrocytes in vitro.
SO IRCS Medical Science, (1979) 7/10 (511).
CODEN: IRLCDZ
AU McCormick D.; Wallace I.
AN 79240642 EMBASE

L50 ANSWER 131 OF 140 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS
RESERVED. on STN DUPLICATE 93
TI Urinary **lysosomal hydrolases** in mucolipidosis II and
mucolipidosis III.
SO Biochemical Journal, (1979) 177/2 (409-415).
CODEN: BIJOAK
AU Kress B.C.; Miller A.L.
AN 79142350 EMBASE

L50 ANSWER 132 OF 140 MEDLINE on STN
TI Alpha-mannosidase in human red cells.

SO BIOCHIMICA ET BIOPHYSICA ACTA, (1979 Jan 12) 566 (1) 67-71.
Journal code: 0217513. ISSN: 0006-3002.
AU Poenaru L; Dreyfus J C
AN 79083030 MEDLINE

L50 ANSWER 133 OF 140 MEDLINE on STN
TI Receptor-mediated uptake of lysosomal enzymes.
SO PROGRESS IN CLINICAL AND BIOLOGICAL RESEARCH, (1978) 23 547-51.
Journal code: 7605701. ISSN: 0361-7742.
AU Sly W S; Kaplan A; Achord D T; Brot F E; Bell C E
AN 78202238 MEDLINE

L50 ANSWER 134 OF 140 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Biochemical basis of six different types of sialidosis.
SO FEBS Letters, (1978) 85/1 (20-24).
CODEN: FEBLAL
AU Strecker G.; Michalski J.C.
AN 78255372 EMBASE

L50 ANSWER 135 OF 140 MEDLINE on STN DUPLICATE 94
TI Carbohydrate composition of purified serum glycoproteins in mucolipidosis II and mucolipidosis III.
SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (1978 Oct 13) 21 (1) 17-21.
Journal code: 0364456. ISSN: 0300-8177.
AU Freeze H; Kress B C; Williams J C; Cerda-Ruiz M; Miller A L
AN 79093680 MEDLINE

L50 ANSWER 136 OF 140 MEDLINE on STN DUPLICATE 95
TI Phosphohexosyl components of a lysosomal enzyme are recognized by pinocytosis receptors on human fibroblasts.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1977 May) 74 (5) 2026-30.
Journal code: 7505876. ISSN: 0027-8424.
AU Kaplan A; Achord D T; Sly W S
AN 77193975 MEDLINE

L50 ANSWER 137 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Interaction between lysosomal glycosidases from human plasma and lectins
SO Protides of the Biological Fluids (1976), Volume Date 1975, 23, 659-62
CODEN: PBFPA6; ISSN: 0079-7065
AU Kint, J. A.
AN 1976:518763 HCAPLUS
DN 85:118763

L50 ANSWER 138 OF 140 MEDLINE on STN DUPLICATE 96
TI Effects of metabolites present during growth of Tetrahymena pyriformis on the subsequent secretion of **lysosomal hydrolases**.
SO JOURNAL OF CELLULAR PHYSIOLOGY, (1975 Aug) 86 (1) 131-42.
Journal code: 0050222. ISSN: 0021-9541.
AU Blum J J
AN 76025202 MEDLINE

L50 ANSWER 139 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 97
TI EFFECTS OF CONCANAVALIN A ON MOUSE PERITONEAL MACROPHAGES PART 2 METABOLISM OF ENDOCYTIZED PROTEINS AND REVERSIBILITY OF THE EFFECTS BY **MANNOSE**.
SO J EXP MED, (1974) 140 (5), 1387-1403.
CODEN: JEMEAV. ISSN: 0022-1007.
AU EDELSON P J; COHN Z A
AN 1975:125429 BIOSIS

L50 ANSWER 140 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN

TI **Lysosomal hydrolases** as glycoproteins
SO Life Sciences (1970), 9(23)(Pt. 2), 1341-50
CODEN: LIFSAK; ISSN: 0024-3205
AU Goldstone, A.; Koenig, H.
AN 1971:72048 HCAPLUS
DN 74:72048

=> d ab 6,11,22,31,45,50,56,71,82,103,108,111,123

L50 ANSWER 6 OF 140 MEDLINE on STN DUPLICATE 4
AB The lysosomal compartment of human monocytic cells has never been investigated by a proteomic approach. By a combination of one-dimensional (1-D) and two-dimensional (2-D) gel electrophoresis, protein identification by N-terminal sequencing, matrix assisted laser desorption/ionization-mass spectrometry (MALDI-MS) peptide mass fingerprinting and tandem mass spectrometry (MS/MS) peptide sequence analysis, we initiated an exhaustive study of the human lyososomal proteome, which aims at establishing a 2-D reference map of human soluble lyososomal proteins. Human monocytic U937 cells were induced to secrete lysosomal soluble hydrolases by addition of NH4Cl in the culture medium. Since lysosomal soluble proteins are characterized by the presence of **mannose**-6-phosphate, they were purified on an affinity support bearing **mannose**-6-phosphate receptor. Analysis of the purified fraction led to the preliminary identification of fifteen proteins, among which twelve are well-known **lysosomal hydrolases**, one is assumed to be lysosomal on the basis of sequence homology to cysteine proteinases of the papain family, and two (leukocystatin and the human cellular repressor of E1A-stimulated genes) are described here for the first time as **mannose**-6-phosphate-containing proteins.

L50 ANSWER 11 OF 140 MEDLINE on STN DUPLICATE 9
AB Evidence is accumulating that intracellular animal lectins play important roles in quality control and glycoprotein sorting along the secretory pathway. Calnexin and calreticulin in conjunction with associated chaperones promote correct folding and oligomerization of many glycoproteins in the endoplasmic reticulum (ER). The **mannose** lectin ERGIC-53 operates as a cargo receptor in transport of glycoproteins from ER to Golgi and the homologous lectin VIP36 may operate in quality control of glycosylation in the Golgi. Exit from the Golgi of **lysosomal hydrolases** to endosomes requires **mannose** 6-phosphate receptors and exit to the apical plasma membrane may also involve traffic lectins. Here we discuss the features of these lectins and their role in glycoprotein traffic in the secretory pathway.

L50 ANSWER 22 OF 140 MEDLINE on STN DUPLICATE 16
AB Targeting of newly synthesized **lysosomal hydrolases** to the lysosome is mediated by the cation-dependent **mannose** 6-phosphate receptor (CD-MPR) and the insulin-like growth factor II/cation-independent **mannose** 6-phosphate receptor (IGF-II/CI-MPR). The two receptors, which share sequence similarities, constitute the P-type family of animal lectins. We now report the three-dimensional structure of a glycosylation-deficient, yet fully functional form of the extracytoplasmic domain of the bovine CD-MPR (residues 3-154) complexed with **mannose** 6-phosphate at 1.8 A resolution. The extracytoplasmic domain of the CD-MPR crystallizes as a dimer, and each monomer folds into a nine-stranded flattened beta barrel, which bears a striking resemblance to avidin. The distance of 40 A between the two ligand-binding sites of the dimer provides a structural basis for the observed differences in binding affinity exhibited by the CD-MPR toward various lysosomal enzymes.

L50 ANSWER 31 OF 140 MEDLINE on STN DUPLICATE 24

AB In cells specialized for secretory granule exocytosis, **lysosomal hydrolases** may enter the regulated secretory pathway. Using mouse pancreatic islets and the INS-1 beta-cell line as models, we have compared the itineraries of procathepsins L and B, two closely related members of the papain superfamily known to exhibit low and high affinity for **mannose**-6-phosphate receptors (MPRs), respectively. Interestingly, shortly after pulse labeling INS cells, a substantial fraction of both proenzymes exhibit regulated exocytosis. After several hours, much procathepsin L remains as precursor in a compartment that persists in its ability to undergo regulated exocytosis in parallel with insulin, while procathepsin B is efficiently converted to the mature form and can no longer be secreted. However, in islets from transgenic mice devoid of cation-dependent MPRs, the modest fraction of procathepsin B normally remaining within mature secretory granules is increased approximately fourfold. In normal mouse islets, immunoelectron microscopy established that both cathepsins are present in immature beta-granules, while immunolabeling for cathepsin L, but not B, persists in mature beta-granules. By contrast, in islets from normal male Sprague-Dawley rats, much of the proenzyme sorting appears to occur earlier, significantly diminishing the stimulus-dependent release of procathepsin B. Evidently, in the context of different systems, MPR-mediated sorting of lysosomal proenzymes occurs to a variable extent within the trans-Golgi network and is continued, as needed, within immature secretory granules. Lysosomal proenzymes that fail to be sorted at both sites remain as residents of mature secretory granules.

L50 ANSWER 45 OF 140 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 34

AB Two related transmembrane proteins in mammalian cells bind the **mannose** 6-phosphate recognition marker present on all soluble **lysosomal hydrolases**. Recent studies of cells that express only one or neither of these proteins have shed light Mot only on their function in directing lysosomal enzymes into the endocytic pathway but also on their critical role in transport vesicle formation in the trans Golgi network. One of these proteins also binds insulin-like growth factor II (IGF-II) and may be an important part of the IGF-dependent system that regulates development.

L50 ANSWER 50 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN

AB A review and discussion with 69 refs. A no. of lysosomal glycoproteins exist which are membrane-assocd. and do not contain the **mannose** 6-phosphate lysosomal targeting signal which sorts sol. **lysosomal hydrolases** to the lysosome in the Golgi app. These include lysosomal acid phosphatase (LAP), which is targeted as a transmembrane protein to the lysosome where it is cleaved to release the sol. enzyme, and a no. of lysosomal membrane-assocd. glycoproteins including the homologous families of LAMP-1 and LAMP-2 as well as other smaller-mol.-wt. glycoproteins including LIMP II and CD63. The cytoplasmic domain of LAP, LAMP-1, and LIMP II is capable of targeting the ectodomain of nonlysosomal glycoproteins to the lysosome. Except for LIMP II, the lysosomal membrane glycoproteins contain a Gly-Tyr-X-X-hydrophobic amino acid lysosomal targeting motif in their cytoplasmic domains. Studies of LAP, LAMP-1, and LAMP-2 have generated conflicting data as to the biosynthetic targeting pathway of these proteins and, in particular, as to whether it includes the plasma membrane.

L50 ANSWER 56 OF 140 MEDLINE on STN DUPLICATE 42

AB Lysosomal enzymes contain a common protein determinant that is recognized by UDP-GlcNAc:lysosomal enzyme N-acetylglucosamine-1-phosphotransferase, the initial enzyme in the biosynthesis of **mannose**-6-P residues. Previously, we generated a lysosomal enzyme recognition domain by substituting two regions (lysine 203 and amino acids 265-292) of the **lysosomal hydrolase** cathepsin D into a related secretory protein glycopepsinogen. When expressed in Xenopus oocytes, the

oligosaccharides of the chimeric protein were efficiently phosphorylated (Baranski, T. J., Faust, P. L., and Kornfeld, S. (1990) Cell 63, 281-291). In the current study, incremental substitutions of cathepsin D residues into glycopepsinogen and alanine-scanning mutagenesis were utilized to define the recognition domain more precisely. A computer-generated model of the cathepsin D/pepsinogen chimeric molecule served as a guide for mutagenesis and for the interpretation of results. These studies indicate that the recognition domain is a surface patch that contains multiple interacting sites. There is a strict positional requirement for the lysine residue at position 203.

L50 ANSWER 71 OF 140 MEDLINE on STN DUPLICATE 52
AB The nature and function of oligosaccharide modification in glucocerebrosidase, a membrane-associated **lysosomal hydrolase**, have been investigated in cultured human skin fibroblasts. Glucocerebrosidase is synthesised as a 62.5-kDa precursor with high-**mannose**-type oligosaccharide chains and an apparent native isoelectric point of 6.0-7.0. Subsequent processing of the oligosaccharide moieties to sialylated complex-type structures results in formation of 65-68-kDa forms of the enzyme with apparent native isoelectric points of 4.3-5.0. These forms are transported to lysosomes and subsequently modified by the sequential action of lysosomal exoglycosidases, finally resulting in a 59-kDa form with an isoelectric point near neutrality. The existence of oligosaccharide modification of the enzyme in the lysosomes is illustrated by the accumulation of different intermediate forms of glucocerebrosidase in mutant cell lines deficient in lysosomal exoglycosidases. The enzyme does not undergo proteolytic modification during maturation. The possible physiological relevance of the oligosaccharide modification of glucocerebrosidase in the lysosomes was investigated by studying the properties of the enzyme in fibroblasts deficient in lysosomal exoglycosidases, and also the properties of homogeneous pure glucocerebrosidase from placenta, modified in the oligosaccharide moieties by digestion in vitro with glycosidases. Modification of the oligosaccharide moieties of glucocerebrosidase had no significant effect on the catalytic activity of the enzyme as measured with either artificial or natural substrates in the presence of artificial or natural activators. There was also no effect of modification of the oligosaccharide chains on the intracellular stability of the enzyme or on its apparent hydrophobicity. We conclude that oligosaccharide modification of glucocerebrosidase in the lysosomes simply reflects further maturation of the enzyme in the lysosome and is of no importance to its function.

L50 ANSWER 82 OF 140 HCAPLUS COPYRIGHT 2003 ACS on STN
AB The biosynthesis of the **mannose** 6-phosphate recognition marker was studied in transport-impaired mouse lymphoma cells to det. the subcellular location of the processing enzymes and to characterize the biosynthetic intermediates. Cells were labeled with [2-3H]**mannose** and chased at a low temp. (15 or 20.degree.) or at 37.degree. in the presence of CCCP to disrupt transport of the pulse-labeled mols. within the secretory app. Both treatments inhibited the migration of the pulse-labeled glycoproteins to the Golgi app., as measured by the prodn. of complex-type asparagine-linked oligosaccharides. Despite this inhibition in protein transport, acid hydrolases were phosphorylated. Structural anal. of the phosphorylated oligosaccharides indicated that the transport-impaired cells produced a single species of phosphorylated high-**mannose** oligosaccharide; essentially all of the mols. contain a single phosphodiester group that is restricted to the .alpha.-1,6 branch of the oligosaccharide. Apparently, synthesis of **mannose** 6-phosphate-bearing high-**mannose** oligosaccharides occurs in an ordered, compartmentalized posttranslational process. The initial phosphorylation of newly synthesized acid hydrolases occurs at a pre-Golgi site and results in the prodn. of high-**mannose**-type units that contain a single phosphodiester group. In a subsequent compartment,

probably within the Golgi app., the monophosphorylated units may be converted to diphosphorylated forms. Finally, at a site distal to the phosphorylation reactions the diesters are hydrolyzed to reveal the **mannose** 6-phosphate recognition marker.

L50 ANSWER 103 OF 140 MEDLINE on STN DUPLICATE 74
AB Glycoproteins terminating in **mannose** are recognized by receptors on macrophages. The **mannose** receptor is expressed by a variety of macrophages but expression is closely regulated. Activated macrophages, for example, express little **mannose** receptor activity. Kinetic and fractionation experiments suggest that cell surface **mannose** receptors recycle to and from an acidic, pre-lysosomal compartment. Preliminary evidence suggests that the **mannose** receptor is a large polypeptide and that it is structurally related to the **mannose** binding protein found in serum. The **mannose** receptor may, among other possibilities, regulate the extracellular levels of **lysosomal hydrolases**.

L50 ANSWER 108 OF 140 MEDLINE on STN
AB Glycoproteins carrying asparagine-linked N-glycosyl oligosaccharides have many diverse biological functions. The role of the carbohydrate in these functions is often obscure. However, there is evidence that carbohydrate is involved in stabilization of glycoproteins during passage from the rough endoplasmic reticulum to the cell surface, and in recognition phenomena such as receptor-mediated endocytosis, routing of **lysosomal hydrolases** to the lysosomes, and the spread of cancer cells to secondary sites. The cell surface carbohydrate of some transformed cell lines tends to be more highly branched than that of the non-transformed controls. The control of branching during synthesis of N-glycosyl oligosaccharides resides in the N-acetylglucosaminyltransferase s (GlcNAc-transferases) which initiate these branches. There must be at least seven such GlcNAc-transferases to account for the diversity of structures that have been observed. Our laboratory has developed assays for four of these enzymes. Substrate specificity studies on these enzymes have shed light on some of the control mechanisms involved in the synthesis of highly branched structures. Alterations in these control mechanisms may be important in the pathogenesis of cancer and other disease.

L50 ANSWER 111 OF 140 MEDLINE on STN DUPLICATE 79
AB The intracellular transport of newly synthesized **lysosomal hydrolases** to lysosomes requires the presence of one or more phosphorylated high **mannose**-type oligosaccharides per enzyme. A receptor that mediates **mannose**-6-PO4-specific uptake of lysosomal enzymes is expressed on the surface of fibroblasts and presumably accounts for the intracellular transport of newly synthesized enzymes to the lysosome. In this study, we examined the internalization of lysosomal enzyme-derived phosphorylated oligosaccharides by cultured human fibroblasts. Oligosaccharides of known specific activity bearing a single phosphate in monoester linkage were internalized with Kuptake of 3.2 X 10(-7) M, whereas oligosaccharides bearing two phosphates in monoester linkage were internalized with a Kuptake of 3.9 X 10(-8) M. Thus, phosphorylated high **mannose**-type oligosaccharides appear to be the minimal structure required for recognition and uptake by the fibroblast receptor. The finding that the Kuptake for monophosphorylated oligosaccharides is 100-fold less than the reported Ki for **mannose** -6-phosphate indicates that the fibroblast phosphomannosyl receptor contains a binding site that recognizes features of the oligosaccharide in addition to **mannose**-6-phosphate.

L50 ANSWER 123 OF 140 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 86
AB Most of the soluble hydrolase activity of broken lysosomes is bound to lysosomal membranes. This soluble activity could be released from the

membranes by the addition of sugar phosphates. **Mannose** -6-phosphate displaces N-acetyl-.beta.-D-glucosaminidase (NA.beta.Gase) from the membrane in a concentration dependent manner; fructose-6-phosphate and AMP were also effective. The binding of .beta.-glucuronidase was similarly affected by sugar phosphates. The glycosyl specificity of the lysosomal membrane receptor appears to be similar to that of the plasma membrane receptor in cultured fibroblasts, as previously reported. Phosphomannosyl receptors for the **lysosomal hydrolases** may exist in the lysosomal membrane and in the plasma membrane.

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=> s lysosom?(5a)target?
FILE 'MEDLINE'
         38027 LYSOSOM?
        241837 TARGET?
L1         691 LYSOSOM?(5A)TARGET?

FILE 'SCISEARCH'
         21942 LYSOSOM?
        279786 TARGET?
L2         645 LYSOSOM?(5A)TARGET?

FILE 'LIFESCI'
          6942 LYSOSOM?
         92599 TARGET?
L3          260 LYSOSOM?(5A)TARGET?

FILE 'BIOTECHDS'
           422 LYSOSOM?
         20191 TARGET?
L4           38 LYSOSOM?(5A)TARGET?

FILE 'BIOSIS'
         37524 LYSOSOM?
        238101 TARGET?
L5          768 LYSOSOM?(5A)TARGET?

FILE 'EMBASE'
         29348 LYSOSOM?
        233519 TARGET?
L6          642 LYSOSOM?(5A)TARGET?

FILE 'HCAPLUS'
         32919 LYSOSOM?
        343801 TARGET?
L7          839 LYSOSOM?(5A)TARGET?

FILE 'NTIS'
           279 LYSOSOM?
         61418 TARGET?
L8             9 LYSOSOM?(5A)TARGET?

FILE 'ESBIOBASE'
          7785 LYSOSOM?
        139159 TARGET?
L9          398 LYSOSOM?(5A)TARGET?

FILE 'BIOTECHNO'
          8463 LYSOSOM?
        106140 TARGET?
L10         411 LYSOSOM?(5A)TARGET?

FILE 'WPIDS'
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          521 LYSOSOM?
       123269 TARGET?
L11         26 LYSOSOM?(5A)TARGET?

TOTAL FOR ALL FILES
L12       4727 LYSOSOM?(5A) TARGET?

=> s l12 and lectin#
FILE 'MEDLINE'
        34944 LECTIN#
L13        13 L1 AND LECTIN#

FILE 'SCISEARCH'
        25083 LECTIN#
L14        12 L2 AND LECTIN#

FILE 'LIFESCI'
         8672 LECTIN#
L15         2 L3 AND LECTIN#

FILE 'BIOTECHDS'
         1041 LECTIN#
L16         1 L4 AND LECTIN#

FILE 'BIOSIS'
        31692 LECTIN#
L17         9 L5 AND LECTIN#

FILE 'EMBASE'
        22213 LECTIN#
L18        10 L6 AND LECTIN#

FILE 'HCAPLUS'
        34733 LECTIN#
L19        17 L7 AND LECTIN#

FILE 'NTIS'
          139 LECTIN#
L20         0 L8 AND LECTIN#

FILE 'ESBIOBASE'
         7690 LECTIN#
L21         7 L9 AND LECTIN#

FILE 'BIOTECHNO'
         9570 LECTIN#
L22         9 L10 AND LECTIN#

FILE 'WPIDS'
         1811 LECTIN#
L23         1 L11 AND LECTIN#

TOTAL FOR ALL FILES
L24        81 L12 AND LECTIN#

=> s l12 and (mannose or m6p)
FILE 'MEDLINE'
        16633 MANNOSE
          183 M6P
L25       197 L1 AND (MANNOSE OR M6P)

FILE 'SCISEARCH'
        12311 MANNOSE
          203 M6P
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L26         164 L2 AND (MANNOSE OR M6P)

FILE 'LIFESCI'
          5538 MANNOSE
            60 M6P
L27          70 L3 AND (MANNOSE OR M6P)

FILE 'BIOTECHDS'
          1594 MANNOSE
             4 M6P
L28           4 L4 AND (MANNOSE OR M6P)

FILE 'BIOSIS'
         19310 MANNOSE
           235 M6P
L29         200 L5 AND (MANNOSE OR M6P)

FILE 'EMBASE'
         12998 MANNOSE
           171 M6P
L30         168 L6 AND (MANNOSE OR M6P)

FILE 'HCAPLUS'
         34625 MANNOSE
           220 M6P
L31         222 L7 AND (MANNOSE OR M6P)

FILE 'NTIS'
           112 MANNOSE
             8 M6P
L32           0 L8 AND (MANNOSE OR M6P)

FILE 'ESBIOBASE'
          4745 MANNOSE
           120 M6P
L33          89 L9 AND (MANNOSE OR M6P)

FILE 'BIOTECHNO'
          7018 MANNOSE
           109 M6P
L34         117 L10 AND (MANNOSE OR M6P)

FILE 'WPIDS'
          2350 MANNOSE
            11 M6P
L35           5 L11 AND (MANNOSE OR M6P)

TOTAL FOR ALL FILES
L36        1236 L12 AND (MANNOSE OR M6P)

=> s l36 and (recombinant# or gene/q)
FILE 'MEDLINE'
        214944 RECOMBINANT#
L37          95 L25 AND (RECOMBINANT# OR GENE/Q)

FILE 'SCISEARCH'
        128023 RECOMBINANT#
L38          68 L26 AND (RECOMBINANT# OR GENE/Q)

FILE 'LIFESCI'
         60044 RECOMBINANT#
L39          20 L27 AND (RECOMBINANT# OR GENE/Q)

FILE 'BIOTECHDS'
```

```
         74311 RECOMBINANT#
L40          3 L28 AND (RECOMBINANT# OR GENE/Q)

FILE 'BIOSIS'
        169859 RECOMBINANT#
L41         52 L29 AND (RECOMBINANT# OR GENE/Q)

FILE 'EMBASE'
        139970 RECOMBINANT#
L42         65 L30 AND (RECOMBINANT# OR GENE/Q)

FILE 'HCAPLUS'
        151835 RECOMBINANT#
L43         66 L31 AND (RECOMBINANT# OR GENE/Q)

FILE 'NTIS'
          1511 RECOMBINANT#
L44          0 L32 AND (RECOMBINANT# OR GENE/Q)

FILE 'ESBIOBASE'
         66211 RECOMBINANT#
L45         34 L33 AND (RECOMBINANT# OR GENE/Q)

FILE 'BIOTECHNO'
        123034 RECOMBINANT#
L46         57 L34 AND (RECOMBINANT# OR GENE/Q)

FILE 'WPIDS'
         30764 RECOMBINANT#
L47          5 L35 AND (RECOMBINANT# OR GENE/Q)

TOTAL FOR ALL FILES
L48        465 L36 AND (RECOMBINANT# OR GENE/Q)

=> s (l24 or l48) not 2002-2003/py
FILE 'MEDLINE'
        898624 2002-2003/PY
L49         92 (L13 OR L37) NOT 2002-2003/PY

FILE 'SCISEARCH'
       1628347 2002-2003/PY
L50         66 (L14 OR L38) NOT 2002-2003/PY

FILE 'LIFESCI'
        137782 2002-2003/PY
L51         20 (L15 OR L39) NOT 2002-2003/PY

FILE 'BIOTECHDS'
         36013 2002-2003/PY
L52          1 (L16 OR L40) NOT 2002-2003/PY

FILE 'BIOSIS'
        812724 2002-2003/PY
L53         49 (L17 OR L41) NOT 2002-2003/PY

FILE 'EMBASE'
        739028 2002-2003/PY
L54         65 (L18 OR L42) NOT 2002-2003/PY

FILE 'HCAPLUS'
       1765463 2002-2003/PY
L55         58 (L19 OR L43) NOT 2002-2003/PY

FILE 'NTIS'
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        17588 2002-2003/PY
L56          0 (L20 OR L44) NOT 2002-2003/PY

FILE 'ESBIOBASE'
       467486 2002-2003/PY
L57         30 (L21 OR L45) NOT 2002-2003/PY

FILE 'BIOTECHNO'
       203275 2002-2003/PY
L58         55 (L22 OR L46) NOT 2002-2003/PY

FILE 'WPIDS'
      1736742 2002-2003/PY
L59          0 (L23 OR L47) NOT 2002-2003/PY

TOTAL FOR ALL FILES
L60        436 (L24 OR L48) NOT 2002-2003/PY

=> dup rem l60
PROCESSING COMPLETED FOR L60
L61         141 DUP REM L60 (295 DUPLICATES REMOVED)

=> d tot

L61  ANSWER 1 OF 141  SCISEARCH  COPYRIGHT 2003 THOMSON ISI on STN
TI   Biodistribution, kinetics, and efficacy of highly phosphorylated and
     non-phosphorylated beta-glucuronidase in the murine model of
     mucopolysaccharidosis VII
SO   JOURNAL OF BIOLOGICAL CHEMISTRY, (16 NOV 2001) Vol. 276, No. 46, pp.
     43160-43165.
     Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE
     PIKE, BETHESDA, MD 20814 USA.
     ISSN: 0021-9258.
AU   Sands M S (Reprint); Vogler C A; Ohlemiller K K; Roberts M S; Grubb J H;
     Levy B; Sly W S
AN   2001:919950  SCISEARCH

L61  ANSWER 2 OF 141     MEDLINE on STN                  DUPLICATE 1
TI   Human acid ceramidase: processing, glycosylation, and lysosomal
     targeting.
SO   JOURNAL OF BIOLOGICAL CHEMISTRY, (2001 Sep 21) 276 (38) 35352-60.
     Journal code: 2985121R. ISSN: 0021-9258.
AU   Ferlinz K; Kopal G; Bernardo K; Linke T; Bar J; Breiden B; Neumann U; Lang
     F; Schuchman E H; Sandhoff K
AN   2001527195     MEDLINE

L61  ANSWER 3 OF 141     MEDLINE on STN
TI   Binding of GGA2 to the lysosomal enzyme sorting motif of the
     mannose 6-phosphate receptor.
SO   SCIENCE, (2001 Jun 1) 292 (5522) 1716-8.
     Journal code: 0404511. ISSN: 0036-8075.
AU   Zhu Y; Doray B; Poussu A; Lehto V P; Kornfeld S
AN   2001314374     MEDLINE

L61  ANSWER 4 OF 141     MEDLINE on STN                  DUPLICATE 2
TI   Enzyme therapy for lysosomal acid lipase deficiency in the mouse.
SO   HUMAN MOLECULAR GENETICS, (2001 Aug 1) 10 (16) 1639-48.
     Journal code: 9208958. ISSN: 0964-6906.
AU   Du H; Schiavi S; Levine M; Mishra J; Heur M; Grabowski G A
AN   2001441564     MEDLINE

L61  ANSWER 5 OF 141     MEDLINE on STN                  DUPLICATE 3
TI   Adenovirus serotype 7 retention in a late endosomal compartment prior to
     cytosol escape is modulated by fiber protein.
```

SO JOURNAL OF VIROLOGY, (2001 Feb) 75 (3) 1387-400.
Journal code: 0113724. ISSN: 0022-538X.
AU Miyazawa N; Crystal R G; Leopold P L
AN 2001111656 MEDLINE

L61 ANSWER 6 OF 141 MEDLINE on STN DUPLICATE 4
TI Overexpression of a rat kinase-deficient phosphoinositide 3-kinase, Vps34p, inhibits cathepsin D maturation.
SO BIOCHEMICAL JOURNAL, (2001 Feb 1) 353 (Pt 3) 655-61.
Journal code: 2984726R. ISSN: 0264-6021.
AU Row P E; Reaves B J; Domin J; Luzio J P; Davidson H W
AN 2001194977 MEDLINE

L61 ANSWER 7 OF 141 MEDLINE on STN
TI Mutations of the C-terminal end of cathepsin K affect proenzyme secretion and intracellular maturation.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2001 Feb 23) 281 (2) 551-7.
Journal code: 0372516. ISSN: 0006-291X.
AU Claveau D; Riendeau D
AN 2001182379 MEDLINE

L61 ANSWER 8 OF 141 MEDLINE on STN DUPLICATE 5
TI **Mannose** 6-phosphate-independent endocytosis of beta-glucuronidase by human fibroblasts. I. Evidence for the existence of a membrane-binding activity.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (2001 Apr 23) 1538 (2-3) 141-51.
Journal code: 0217513. ISSN: 0006-3002.
AU Gonzalez-Noriega A; Michalak C; Cruz-Perez J R; Masso F
AN 2001341378 MEDLINE

L61 ANSWER 9 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI **Mannose** 6-phosphate-independent endocytosis of beta-glucuronidase by human fibroblasts I. evidence for the existence of a membrane-binding activity
SO BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH, (23 APR 2001) Vol. 1538, No. 2-3, pp. 141-151.
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
ISSN: 0167-4889.
AU Gonzalez-Noriega A (Reprint); Michalak C; Cruz-Perez J R; Masso F
AN 2001:387562 SCISEARCH

L61 ANSWER 10 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Distinct reading of different structural determinants modulates the dileucine-mediated transport steps of the lysosomal membrane protein LIMPII and the insulin-sensitive glucose transporter GLUT4
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (22 DEC 2000) Vol. 275, No. 51, pp. 39874-39885.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.
ISSN: 0021-9258.
AU Sandoval I V (Reprint); Martinez-Arca S; Valdueza J; Palacios S; Holman G D
AN 2001:39472 SCISEARCH

L61 ANSWER 11 OF 141 MEDLINE on STN DUPLICATE 6
TI Identification of a novel **sequence** involved in lysosomal sorting of the sphingolipid activator protein prosaposin.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Aug 11) 275 (32) 24829-39.
Journal code: 2985121R. ISSN: 0021-9258.
AU Zhao Q; Morales C R
AN 2000428439 MEDLINE

L61 ANSWER 12 OF 141 LIFESCI COPYRIGHT 2003 CSA on STN DUPLICATE 7
TI Live Salmonella Modulate Expression of Rab Proteins to Persist in a Specialized Compartment and Escape Transport to Lysosomes
SO Journal of Biological Chemistry [J. Biol. Chem.], (20000526) vol. 275, no. 21, pp. 16281-16288.
ISSN: 0021-9258.
AU Hashim, S.; Mukherjee, K.; Raje, M.; Basu, S.K.; Mukhopadhyay, A.
AN 2001:28529 LIFESCI

L61 ANSWER 13 OF 141 MEDLINE on STN DUPLICATE 8
TI Targeted disruption of the cation-dependent or cation-independent **mannose** 6-phosphate receptor does not decrease the content of acid glycosidases in the acrosome.
SO JOURNAL OF ANDROLOGY, (2000 Nov-Dec) 21 (6) 944-53.
Journal code: 8106453. ISSN: 0196-3635.
AU Chayko C A; Orgebin-Crist M C
AN 2001303904 MEDLINE

L61 ANSWER 14 OF 141 MEDLINE on STN DUPLICATE 9
TI The dendritic cell receptor for endocytosis, DEC-205, can recycle and enhance antigen presentation via major histocompatibility complex class II-positive lysosomal compartments.
SO JOURNAL OF CELL BIOLOGY, (2000 Oct 30) 151 (3) 673-84.
Journal code: 0375356. ISSN: 0021-9525.
AU Mahnke K; Guo M; Lee S; Sepulveda H; Swain S L; Nussenzweig M; Steinman R M
AN 2001042083 MEDLINE

L61 ANSWER 15 OF 141 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI Lysosomal fusion following FcgammaRIIA phagocytosis is mediated by a novel cytoplasmic motif.
SO Blood, (November 16, 2000) Vol. 96, No. 11 Part 1, pp. 443a. print.
Meeting Info.: 42nd Annual Meeting of the American Society of Hematology San Francisco, California, USA December 01-05, 2000 American Society of Hematology
. ISSN: 0006-4971.
AU Worth, Randall G. (1); Kim, Moo-kyung (1); Mayo-Bond, Laura; Todd, Robert F., III; Petty, Howard R.; Schreiber, Alan D. (1)
AN 2001:314511 BIOSIS

L61 ANSWER 16 OF 141 MEDLINE on STN DUPLICATE 10
TI "Supercharged Cells" for delivery of **recombinant** human iduronate-2-sulfatase.
SO MOLECULAR GENETICS AND METABOLISM, (2000 Jul) 70 (3) 170-8.
Journal code: 9805456. ISSN: 1096-7192.
AU Pan D; Jonsson J J; Braun S E; McIvor R S; Whitley C B
AN 2000418896 MEDLINE

L61 ANSWER 17 OF 141 MEDLINE on STN DUPLICATE 11
TI Protease trafficking in two primitive eukaryotes is mediated by a prodomain protein motif.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Jun 4) 274 (23) 16249-56.
Journal code: 2985121R. ISSN: 0021-9258.
AU Huete-Perez J A; Engel J C; Brinen L S; Mottram J C; McKerrow J H
AN 1999278392 MEDLINE

L61 ANSWER 18 OF 141 MEDLINE on STN DUPLICATE 12
TI Altered ligand binding by insulin-like growth factor II/**mannose** 6-phosphate receptors bearing missense mutations in human cancers.
SO CANCER RESEARCH, (1999 Sep 1) 59 (17) 4314-9.
Journal code: 2984705R. ISSN: 0008-5472.
AU Devi G R; De Souza A T; Byrd J C; Jirtle R L; MacDonald R G
AN 1999413488 MEDLINE

L61 ANSWER 19 OF 141 MEDLINE on STN
TI Interaction of arylsulfatase A with UDP-N-acetylglucosamine:Lysosomal enzyme-N-acetylglucosamine-1-phosphotransferase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Feb 5) 274 (6) 3651-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Schierau A; Dietz F; Lange H; Schestag F; Parastar A; Gieselmann V
AN 1999121106 MEDLINE

L61 ANSWER 20 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 13
TI Human dendritic cells shed a functional, soluble form of the **mannose** receptor.
SO International Immunology, (1999) 11/11 (1775-1780).
Refs: 34
ISSN: 0953-8178 CODEN: INIMEN
AU Jordens R.; Thompson A.; Amons R.; Koning F.
AN 1999396102 EMBASE

L61 ANSWER 21 OF 141 MEDLINE on STN DUPLICATE 14
TI Alternative mechanisms for trafficking of lysosomal enzymes in **mannose** 6-phosphate receptor-deficient mice are cell type-specific.
SO JOURNAL OF CELL SCIENCE, (1999 May) 112 (Pt 10) 1591-7.
Journal code: 0052457. ISSN: 0021-9533.
AU Dittmer F; Ulbrich E J; Hafner A; Schmahl W; Meister T; Pohlmann R; von Figura K
AN 1999230346 MEDLINE

L61 ANSWER 22 OF 141 MEDLINE on STN DUPLICATE 15
TI **Targeted** disruption of the **lysosomal** alpha-mannosidase **gene** results in mice resembling a mild form of human alpha-mannosidosis.
SO HUMAN MOLECULAR GENETICS, (1999 Aug) 8 (8) 1365-72.
Journal code: 9208958. ISSN: 0964-6906.
AU Stinchi S; Lullmann-Rauch R; Hartmann D; Coenen R; Beccari T; Orlacchio A; von Figura K; Saftig P
AN 1999330543 MEDLINE

L61 ANSWER 23 OF 141 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI The IGF 2 receptor and **targeting** of **lysosomal** enzymes: Implications for intracellular degradation of IGFBP-3.
SO Growth Hormone and IGF Research, (Oct., 1999) Vol. 9, No. 5, pp. 330-331.
Meeting Info.: 5th International Symposium on Insulin-Like Growth Factors Brighton, England, UK October 31-November 4, 1999 Growth Hormone Research Society
. ISSN: 1096-6374.
AU Braulke, T. (1); Storch, S. (1); Dittmer, F.; Goetz, W.
AN 2000:28099 BIOSIS

L61 ANSWER 24 OF 141 MEDLINE on STN DUPLICATE 16
TI The mammalian AP-3 adaptor-like complex mediates the intracellular transport of lysosomal membrane glycoproteins.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Nov 6) 273 (45) 29451-61.
Journal code: 2985121R. ISSN: 0021-9258.
AU Le Borgne R; Alconada A; Bauer U; Hoflack B
AN 1999009051 MEDLINE

L61 ANSWER 25 OF 141 MEDLINE on STN DUPLICATE 17
TI Purification and multimeric structure of bovine N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Sep 4) 273 (36) 23203-10.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kornfeld R; Bao M; Brewer K; Noll C; Canfield W M
AN 1998389751 MEDLINE

L61 ANSWER 26 OF 141 MEDLINE on STN DUPLICATE 18
TI The two **mannose** 6-phosphate binding sites of the insulin-like growth factor-II/**mannose** 6-phosphate receptor display different ligand binding properties.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Aug 28) 273 (35) 22358-66.
Journal code: 2985121R. ISSN: 0021-9258.
AU Marron-Terada P G; Brzycki-Wessell M A; Dahms N M
AN 1998380453 MEDLINE

L61 ANSWER 27 OF 141 MEDLINE on STN DUPLICATE 19
TI Lysine-based structure responsible for selective **mannose** phosphorylation of cathepsin D and cathepsin L defines a common structural motif for **lysosomal** enzyme **targeting**.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Aug 14) 273 (33) 21067-76.
Journal code: 2985121R. ISSN: 0021-9258.
AU Cuozzo J W; Tao K; Cygler M; Mort J S; Sahagian G G
AN 1998361980 MEDLINE

L61 ANSWER 28 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 20
TI Structural determination of oligosaccharides from **recombinant** iduronidase released with peptide N-glycanase F using fluorophore-assisted carbohydrate electrophoresis.
SO Electrophoresis, (1998) 19/15 (2612-2620).
Refs: 16
ISSN: 0173-0835 CODEN: ELCTDN
AU Hague C.; Masada R.I.; Starr C.
AN 1998402977 EMBASE

L61 ANSWER 29 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Mouse mutants lacking the cation-independent **mannose** 6-phosphate insulin-like growth factor II receptor are impaired in lysosomal enzyme transport: comparison of cation-independent and cation-dependent **mannose** 6-phosphate receptor-deficient mice
SO BIOCHEMICAL JOURNAL, (1 MAR 1998) Vol. 330, Part 2, pp. 903-908.
Publisher: PORTLAND PRESS, 59 PORTLAND PLACE, LONDON, ENGLAND W1N 3AJ.
ISSN: 0264-6021.
AU Sohar I; Sleat D; Liu C G; Ludwig T; Lobel P (Reprint)
AN 1998:248593 SCISEARCH

L61 ANSWER 30 OF 141 MEDLINE on STN DUPLICATE 21
TI **Mannose** 6-phosphate/insulin-like growth factor-II receptor **targets** the urokinase receptor to **lysosomes** via a novel binding interaction.
SO JOURNAL OF CELL BIOLOGY, (1998 May 4) 141 (3) 815-28.
Journal code: 0375356. ISSN: 0021-9525.
AU Nykjaer A; Christensen E I; Vorum H; Hager H; Petersen C M; Roigaard H; Min H Y; Vilhardt F; Moller L B; Kornfeld S; Gliemann J
AN 1998234414 MEDLINE

L61 ANSWER 31 OF 141 MEDLINE on STN DUPLICATE 22
TI Molecular basis of lysosomal enzyme recognition: three-dimensional structure of the cation-dependent **mannose** 6-phosphate receptor.
SO CELL, (1998 May 15) 93 (4) 639-48.
Journal code: 0413066. ISSN: 0092-8674.
AU Roberts D L; Weix D J; Dahms N M; Kim J J
AN 1998265974 MEDLINE

L61 ANSWER 32 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Mistargeting of the **lectin** ERGIC-53 to the endoplasmic reticulum of HeLa cells impairs the secretion of a lysosomal enzyme
SO Journal of Cell Biology (1998), 142(2), 377-389
CODEN: JCLBA3; ISSN: 0021-9525

AU Vollenweider, Florence; Kappeler, Felix; Itin, Christian; Hauri, Hans-Peter
AN 1998:515907 HCAPLUS
DN 129:228624

L61 ANSWER 33 OF 141 MEDLINE on STN
TI Human and hamster procathepsin D, although equally tagged with **mannose**-6-phosphate, are differentially **targeted** to **lysosomes** in transfected BHK cells.
SO CELL AND TISSUE RESEARCH, (1998 May) 292 (2) 303-10.
Journal code: 0417625. ISSN: 0302-766X.
AU Isidoro C; Baccino F M; Hasilik A
AN 1998228252 MEDLINE

L61 ANSWER 34 OF 141 MEDLINE on STN
TI Basolateral sorting of the cation-dependent **mannose** 6-phosphate receptor in Madin-Darby canine kidney cells. Identification of a basolateral determinant unrelated to clathrin-coated pit localization signals.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Jan 2) 273 (1) 186-93.
Journal code: 2985121R. ISSN: 0021-9258.
AU Distel B; Bauer U; Le Borgne R; Hoflack B
AN 1998079043 MEDLINE

L61 ANSWER 35 OF 141 MEDLINE on STN DUPLICATE 23
TI Lysosomal segregation of a **mannose**-rich glycoprotein imparted by the prosequence of myeloperoxidase.
SO JOURNAL OF CELLULAR BIOCHEMISTRY, (1998 Nov 1) 71 (2) 158-68.
Journal code: 8205768. ISSN: 0730-2312.
AU Bening U; Castino R; Harth N; Isidoro C; Hasilik A
AN 1998451095 MEDLINE

L61 ANSWER 36 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 24
TI Expression of chimeric human aspartic proteinases
SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (MAY 1998) Vol. 436, pp. 139-146.
Publisher: PLENUM PRESS DIV PLENUM PUBLISHING CORP, 233 SPRING ST, NEW YORK, NY 10013.
ISSN: 0065-2598.
AU Chirgwin J M (Reprint); Schultz S; Sachdev D
AN 1998:348122 SCISEARCH

L61 ANSWER 37 OF 141 MEDLINE on STN DUPLICATE 25
TI A quantitative **mannose** 6-phosphate receptor-based in vitro assay for **recombinant** human N-acetylgalactosamine-4-sulfatase.
SO ANALYTICAL BIOCHEMISTRY, (1998 Jul 1) 260 (2) 128-34.
Journal code: 0370535. ISSN: 0003-2697.
AU Kleinig M; Cox J
AN 1998324859 MEDLINE

L61 ANSWER 38 OF 141 MEDLINE on STN DUPLICATE 26
TI N-glycoprotein biosynthesis in plants: recent developments and future trends.
SO PLANT MOLECULAR BIOLOGY, (1998 Sep) 38 (1-2) 31-48. Ref: 101
Journal code: 9106343. ISSN: 0167-4412.
AU Lerouge P; Cabanes-Macheteau M; Rayon C; Fischette-Laine A C; Gomord V; Faye L
AN 1998409339 MEDLINE

L61 ANSWER 39 OF 141 MEDLINE on STN DUPLICATE 27
TI Imprinting of the mouse Igf2r **gene** depends on an intronic CpG island.
SO MOLECULAR AND CELLULAR ENDOCRINOLOGY, (1998 May 25) 140 (1-2) 9-14. Ref:

35
Journal code: 7500844. ISSN: 0303-7207.
AU Wutz A; Barlow D P
AN 1998387616 MEDLINE

L61 ANSWER 40 OF 141 MEDLINE on STN DUPLICATE 28
TI Carbohydrate structures of **recombinant** human alpha-L-iduronidase secreted by Chinese hamster ovary cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1997 Sep 5) 272 (36) 22758-65.
Journal code: 2985121R. ISSN: 0021-9258.
AU Zhao K W; Faull K F; Kakkis E D; Neufeld E F
AN 97426422 MEDLINE

L61 ANSWER 41 OF 141 MEDLINE on STN DUPLICATE 29
TI Abnormal glycosylation of procathepsin L due to N-terminal point mutations correlates with failure to sort to lysosomes.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1997 Mar 28) 272 (13) 8808-16.
Journal code: 2985121R. ISSN: 0021-9258.
AU Chapman R L; Kane S E; Erickson A H
AN 97236845 MEDLINE

L61 ANSWER 42 OF 141 MEDLINE on STN DUPLICATE 30
TI Two mechanisms for the recapture of extracellular GM2 activator protein: evidence for a major secretory form of the protein.
SO BIOCHEMISTRY, (1997 Jul 8) 36 (27) 8325-31.
Journal code: 0370623. ISSN: 0006-2960.
AU Rigat B; Wang W; Leung A; Mahuran D J
AN 97349278 MEDLINE

L61 ANSWER 43 OF 141 MEDLINE on STN
TI Several cooperating binding sites mediate the interaction of a lysosomal enzyme with phosphotransferase.
SO EMBO JOURNAL, (1997 Nov 17) 16 (22) 6684-93.
Journal code: 8208664. ISSN: 0261-4189.
AU Tikkanen R; Peltola M; Oinonen C; Rouvinen J; Peltonen L
AN 1998031896 MEDLINE

L61 ANSWER 44 OF 141 MEDLINE on STN DUPLICATE 31
TI Retroviral transfer of acid alpha-glucosidase cDNA to enzyme-deficient myoblasts results in phenotypic spread of the genotypic correction by both secretion and fusion.
SO HUMAN GENE THERAPY, (1997 Sep 1) 8 (13) 1555-63.
Journal code: 9008950. ISSN: 1043-0342.
AU Zaretsky J Z; Candotti F; Boerkoel C; Adams E M; Yewdell J W; Blaese R M; Plotz P H
AN 97463304 MEDLINE

L61 ANSWER 45 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI A cell proliferating factor derived from abalone Haliotis discus heat-stable protein
SO Animal Cell Technology: Basic & Applied Aspects, Proceedings of the Annual Meeting of the Japanese Association for Animal Cell Technology, 8th, Fukuoka, November 6-10, 1995 (1997), Meeting Date 1995, 553-557.
Editor(s): Funatsu, Kazumori; Shirai, Yoshihito; Matsushita, Taku.
Publisher: Kluwer, Dordrecht, Neth.
CODEN: 64WUA2
AU Kong, Zwe-Ling; Fang, Francis; Chiang, Li-Ching; Chang, Erik
AN 1997:563334 HCAPLUS
DN 127:216675

L61 ANSWER 46 OF 141 MEDLINE on STN DUPLICATE 32
TI Functional characterization of the N-glycosylation sites of human acid sphingomyelinase by site-directed mutagenesis.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1997 Jan 15) 243 (1-2) 511-7.

Journal code: 0107600. ISSN: 0014-2956.
AU Ferlinz K; Hurwitz R; Moczall H; Lansmann S; Schuchman E H; Sandhoff K
AN 97182640 MEDLINE

L61 ANSWER 47 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Presence and differential internalization of two distinct insulin-like growth factor receptors in rat hippocampal neurons
SO NEUROSCIENCE, (MAY 1997) Vol. 78, No. 2, pp. 373-383.
Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD, ENGLAND OX5 1GB.
ISSN: 0306-4522.
AU Dore S; Kar S; Quirion R (Reprint)
AN 97:350348 SCISEARCH

L61 ANSWER 48 OF 141 MEDLINE on STN
TI Inherited disorders of glycoprotein synthesis: cell biological insights.
SO PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE, (1997 Jun) 215 (2) 145-57. Ref: 89
Journal code: 7505892. ISSN: 0037-9727.
AU McDowell G; Gahl W A
AN 97303718 MEDLINE

L61 ANSWER 49 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Biorecognizable polymer conjugates containing 5-fluorouracil for the treatment of colon cancer (**lysosomal** enzymes, **lectin targeting**)
SO (1996) 237 pp. Avail.: From degree-granting institution
From: Diss. Abstr. Int., B 1996, 57(4), 2582
AU Putnam, David Aaron
AN 1996:555747 HCAPLUS
DN 125:230633

L61 ANSWER 50 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 33
TI Biosynthesis, processing, and targeting of sphingolipid activator protein (SAP) precursor in cultured human fibroblasts. **Mannose** 6-phosphate receptor-independent endocytosis of SAP precursor.
SO Journal of Biological Chemistry, (1996) 271/50 (32438-32446).
ISSN: 0021-9258 CODEN: JBCHA3
AU Vielhaber G.; Hurwitz R.; Sandhoff K.
AN 96381550 EMBASE

L61 ANSWER 51 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 34
TI Bovine UDP-N-acetylglucosamine:lysosomal-enzyme N-acetylglucosamine-1-phosphotransferase. I. Purification and subunit structure.
SO Journal of Biological Chemistry, (1996) 271/49 (31437-31445).
ISSN: 0021-9258 CODEN: JBCHA3
AU Bao M.; Booth J.L.; Elmendorf B.J.; Canfield W.M.
AN 96372041 EMBASE

L61 ANSWER 52 OF 141 MEDLINE on STN
TI Expression of major histocompatibility complex class II molecules in HeLa cells promotes the recruitment of AP-1 Golgi-specific assembly proteins on Golgi membranes.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Nov 29) 271 (48) 30318-21.
Journal code: 2985121R. ISSN: 0021-9258.
AU Salamero J; Le Borgne R; Saudrais C; Goud B; Hoflack B
AN 97094755 MEDLINE

L61 ANSWER 53 OF 141 MEDLINE on STN
TI **Lysosomal targeting** of palmitoyl-protein thioesterase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Jun 28) 271 (26) 15831-6.
Journal code: 2985121R. ISSN: 0021-9258.

AU Verkruyse L A; Hofmann S L
AN 96279113 MEDLINE

L61 ANSWER 54 OF 141 MEDLINE on STN DUPLICATE 35
TI Re-expression of the **mannose** 6-phosphate receptors in receptor-deficient fibroblasts. Complementary function of the two **mannose** 6-phosphate receptors in **lysosomal** enzyme **targeting**.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Jun 21) 271 (25) 15166-74.
Journal code: 2985121R. ISSN: 0021-9258.
AU Munier-Lehmann H; Mauxion F; Bauer U; Lobel P; Hoflack B
AN 96279016 MEDLINE

L61 ANSWER 55 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI A DI-LEUCINE MOTIF AND AN UPSTREAM SERINE IN THE INTERLEUKIN-6 (IL-6) SIGNAL TRANSDUCER GP130 MEDIATE LIGAND-INDUCED ENDOCYTOSIS AND DOWN-REGULATION OF THE IL-6 RECEPTOR
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (08 MAR 1996) Vol. 271, No. 10, pp. 5487-5494.
ISSN: 0021-9258.
AU DITTRICH E; HAFT C R; MUYS L; HEINRICH P C; GRAEVE L (Reprint)
AN 96:189919 SCISEARCH

L61 ANSWER 56 OF 141 MEDLINE on STN DUPLICATE 36
TI Human palmitoyl protein thioesterase: evidence for **lysosomal** **targeting** of the enzyme and disturbed cellular routing in infantile neuronal ceroid lipofuscinosis.
SO EMBO JOURNAL, (1996 Oct 1) 15 (19) 5240-5.
Journal code: 8208664. ISSN: 0261-4189.
AU Hellsten E; Vesa J; Olkkonen V M; Jalanko A; Peltonen L
AN 97050830 MEDLINE

L61 ANSWER 57 OF 141 MEDLINE on STN DUPLICATE 37
TI A casein kinase II phosphorylation site in the cytoplasmic domain of the cation-dependent **mannose** 6-phosphate receptor determines the high affinity interaction of the AP-1 Golgi assembly proteins with membranes.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Jan 26) 271 (4) 2171-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Mauxion F; Le Borgne R; Munier-Lehmann H; Hoflack B
AN 96147197 MEDLINE

L61 ANSWER 58 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 38
TI Ser72Pro active-site disease mutation in human lysosomal aspartylglucosaminidase: Abnormal intracellular processing and evidence for extracellular activation.
SO Human Molecular Genetics, (1996) 5/6 (737-743).
ISSN: 0964-6906 CODEN: HMGEE5
AU Peltola M.; Tikkanen R.; Peltonen L.; Jalanko A.
AN 96176989 EMBASE

L61 ANSWER 59 OF 141 MEDLINE on STN DUPLICATE 39
TI Purification and characterization of human lymphoblast N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase.
SO GLYCOBIOLOGY, (1996 Sep) 6 (6) 619-26.
Journal code: 9104124. ISSN: 0959-6658.
AU Page T; Zhao K W; Tao L; Miller A L
AN 97081714 MEDLINE

L61 ANSWER 60 OF 141 MEDLINE on STN DUPLICATE 40
TI Neither type of **mannose** 6-phosphate receptor is sufficient for **targeting** of **lysosomal** enzymes along intracellular routes.

SO JOURNAL OF CELL BIOLOGY, (1996 Aug) 134 (3) 615-23.
Journal code: 0375356. ISSN: 0021-9525.
AU Kasper D; Dittmer F; von Figura K; Pohlmann R
AN 96326668 MEDLINE

L61 ANSWER 61 OF 141 MEDLINE on STN DUPLICATE 41
TI Brain-specific interaction of a 91-kDa membrane-bound protein with the cytoplasmic tail of the 300-kDa **mannose** 6-phosphate receptor.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1996 Apr 25) 221 (3) 525-30.
Journal code: 0372516. ISSN: 0006-291X.
AU Rosorius O; Issinger O G; Braulke T
AN 96205310 MEDLINE

L61 ANSWER 62 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI PROTEIN TARGETING BY TYROSINE-BASED AND DI-LEUCINE-BASED SIGNALS - EVIDENCE FOR DISTINCT SATURABLE COMPONENTS
SO JOURNAL OF CELL BIOLOGY, (OCT 1996) Vol. 135, No. 2, pp. 341-354.
ISSN: 0021-9525.
AU MARKS M S; WOODRUFF L; OHNO H; BONIFACINO J S (Reprint)
AN 96:778356 SCISEARCH

L61 ANSWER 63 OF 141 MEDLINE on STN
TI Glycosylation and phosphorylation of lysosomal glycosylasparaginase.
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1996 Apr 1) 328 (1) 73-7.
Journal code: 0372430. ISSN: 0003-9861.
AU Park H; Vettese-Dadey M; Aronson N N Jr
AN 96195764 MEDLINE

L61 ANSWER 64 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 42
TI CLONING AND EXPRESSION OF THE CDNA OF CHICKEN CATION-INDEPENDENT **MANNOSE**-6-PHOSPHATE RECEPTOR
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (10 OCT 1995) Vol. 92, No. 21, pp. 9762-9766.
ISSN: 0027-8424.
AU ZHOU M; MA Z M; SLY W S (Reprint)
AN 95:705365 SCISEARCH

L61 ANSWER 65 OF 141 MEDLINE on STN DUPLICATE 43
TI Lysine residues in the C-terminal lobe and **lysosomal targeting** of procathepsin D.
SO JOURNAL OF CELL SCIENCE, (1995 May) 108 (Pt 5) 2007-15.
Journal code: 0052457. ISSN: 0021-9533.
AU Schorey J S; Fortenberry S C; Chirgwin J M
AN 95386599 MEDLINE

L61 ANSWER 66 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI TRANSLOCATION OF DIFFERENT FORMS OF TRANSFERRIN FROM BLOOD TO BILE IN THE RAT
SO HEPATOLOGY, (APR 1995) Vol. 21, No. 4, pp. 1063-1069.
ISSN: 0270-9139.
AU REGOECZI E (Reprint); CHINDEMI P A
AN 95:415484 SCISEARCH

L61 ANSWER 67 OF 141 MEDLINE on STN
TI Intracellular **targeting** of **lysosomal** cathepsin D in COS cells.
SO JOURNAL OF BIOCHEMISTRY, (1995 Nov) 118 (5) 981-8.
Journal code: 0376600. ISSN: 0021-924X.
AU Takeshima H; Sakaguchi M; Mihara K; Murakami K; Omura T
AN 96318511 MEDLINE

L61 ANSWER 68 OF 141 MEDLINE on STN DUPLICATE 44

TI Beta-N-acetylhexosaminidases A and S have similar sub-cellular distributions in HL-60 cells.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1995 Apr 13) 1243 (3) 489-95.
Journal code: 0217513. ISSN: 0006-3002.
AU Martino S; Emiliani C; Orlacchio A; Hosseini R; Stirling J L
AN 95244604 MEDLINE

L61 ANSWER 69 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI BETA-N-ACETYLHEXOSAMINIDASE-A AND BETA-N-ACETYLHEXOSAMINIDASE-S HAVE SIMILAR SUBCELLULAR DISTRIBUTIONS IN HL-60 CELLS
SO BIOCHIMICA ET BIOPHYSICA ACTA-GENERAL SUBJECTS, (13 APR 1995) Vol. 1243, No. 3, pp. 489-495.
ISSN: 0304-4165.
AU MARTINO S; EMILIANI C; ORLACCHIO A; HOSSEINI R; STIRLING J L (Reprint)
AN 95:283344 SCISEARCH

L61 ANSWER 70 OF 141 MEDLINE on STN DUPLICATE 45
TI Protein trafficking in kinetoplastid protozoa.
SO MICROBIOLOGICAL REVIEWS, (1995 Sep) 59 (3) 325-44. Ref: 250
Journal code: 7806086. ISSN: 0146-0749.
AU Clayton C; Hausler T; Blattner J
AN 96035694 MEDLINE

L61 ANSWER 71 OF 141 MEDLINE on STN DUPLICATE 46
TI Does the overexpression of pro-insulin-like growth factor-II in transfected human embryonic kidney fibroblasts increase the secretion of lysosomal enzymes?.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1995 Aug 15) 232 (1) 172-8.
Journal code: 0107600. ISSN: 0014-2956.
AU Hoeflich A; Wolf E; Braulke T; Koepf G; Kessler U; Brem G; Rascher W; Blum W; Kiess W
AN 96048044 MEDLINE

L61 ANSWER 72 OF 141 MEDLINE on STN DUPLICATE 47
TI Regulation of lysosomal and ubiquitin degradative pathways in differentiating human intestinal Caco-2 cells.
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1995 May 29) 1267 (1) 15-24.
Journal code: 0217513. ISSN: 0006-3002.
AU Zhang Y; Wick D A; Haas A L; Seetharam B; Dahms N M
AN 95298830 MEDLINE

L61 ANSWER 73 OF 141 MEDLINE on STN DUPLICATE 48
TI Subcellular localization and targeting of cathepsin E.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 Dec 9) 269 (49) 31259-66.
Journal code: 2985121R. ISSN: 0021-9258.
AU Finley E M; Kornfeld S
AN 95074171 MEDLINE

L61 ANSWER 74 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI INVOLVEMENT OF DILEUCINE MOTIFS IN THE INTERNALIZATION AND DEGRADATION OF THE INSULIN-RECEPTOR
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (21 OCT 1994) Vol. 269, No. 42, pp. 26286-26294.
ISSN: 0021-9258.
AU HAFT C R; KLAUSNER R D; TAYLOR S I (Reprint)
AN 94:726664 SCISEARCH

L61 ANSWER 75 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Mutational analysis of the cation-independent **mannose** 6-phosphate/insulin-like growth factor II receptor. A consensus casein kinase II site followed by 2 leucines near the carboxyl terminus is important for intracellular **targeting** of **lysosomal** enzymes. [Erratum to document cited in CA119:241482]
SO Journal of Biological Chemistry (1994), 269(23), 16518

CODEN: JBCHA3; ISSN: 0021-9258
AU Chen, Hong Jung; Remmler, Jill; Delaney, James C.; Messner, Donald J.; Lobel, Peter
AN 1994:500048 HCAPLUS
DN 121:100048

L61 ANSWER 76 OF 141 MEDLINE on STN DUPLICATE 49
TI Glycosylation of **recombinant** prorenin in insect cells: the insect cell line Sf9 does not express the **mannose** 6-phosphate recognition signal.
SO BIOCHEMISTRY, (1994 Jul 26) 33 (29) 8793-7.
Journal code: 0370623. ISSN: 0006-2960.
AU Aeed P A; Elhammer A P
AN 94312393 MEDLINE

L61 ANSWER 77 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI THE RESIDUES LEU(ILE)(475)-ILE(LEU,VAL,ALA)(476), CONTAINED IN THE EXTENDED CARBOXYL CYTOPLASMIC TAIL, ARE CRITICAL FOR **TARGETING** OF THE RESIDENT **LYSOSOMAL** MEMBRANE-PROTEIN LIMP-II TO LYSOSOMES
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (04 MAR 1994) Vol. 269, No. 9, pp. 6622-6631.
ISSN: 0021-9258.
AU SANDOVAL I V (Reprint); ARREDONDO J J; ALCALDE J; NORIEGA A G; VANDEKERCKHOVE J; JIMENEZ M A; RICO M
AN 94:123132 SCISEARCH

L61 ANSWER 78 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI **LYSOSOMAL TARGETING** OF LIMP-II MEMBRANE GLYCOPROTEIN REQUIRES A NOVEL LEU-ILE MOTIF AT A PARTICULAR POSITION IN ITS CYTOPLASMIC TAIL
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (18 FEB 1994) Vol. 269, No. 7, pp. 5210-5217.
ISSN: 0021-9258.
AU OGATA S; FUKUDA M (Reprint)
AN 94:98528 SCISEARCH

L61 ANSWER 79 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI DIFFERENTIAL SORTING OF LYSOSOMAL-ENZYMES IN **MANNOSE** 6-PHOSPHATE RECEPTOR-DEFICIENT FIBROBLASTS
SO EMBO JOURNAL, (01 AUG 1994) Vol. 13, No. 15, pp. 3430-3437.
ISSN: 0261-4189.
AU LUDWIG T; MUNIERLEHMANN H; BAUER U; HOLLINSHEAD M; OVITT C; LOBEL P; HOFLACK B (Reprint)
AN 94:517703 SCISEARCH

L61 ANSWER 80 OF 141 MEDLINE on STN DUPLICATE 50
TI Purification and kinetic parameters of bovine liver N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 Jan 21) 269 (3) 1718-26.
Journal code: 2985121R. ISSN: 0021-9258.
AU Mullis K G; Huynh M; Kornfeld R H
AN 94124511 MEDLINE

L61 ANSWER 81 OF 141 MEDLINE on STN DUPLICATE 51
TI Regulation of embryonic growth and **lysosomal targeting** by the imprinted Igf2/Mpr **gene**.
SO NATURE, (1994 Dec 1) 372 (6505) 464-7.
Journal code: 0410462. ISSN: 0028-0836.
AU Wang Z Q; Fung M R; Barlow D P; Wagner E F
AN 95075458 MEDLINE

L61 ANSWER 82 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI THE CYTOPLASMIC DOMAIN OF P-SELECTIN CONTAINS A SORTING DETERMINANT THAT MEDIATES RAPID DEGRADATION IN LYSOSOMES

SO JOURNAL OF CELL BIOLOGY, (FEB 1994) Vol. 124, No. 4, pp. 435-448.
ISSN: 0021-9525.
AU GREEN S A (Reprint); SETIADI H; MCEVER R P; KELLY R B
AN 94:83524 SCISEARCH

L61 ANSWER 83 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 52
TI INSULIN-LIKE GROWTH-FACTOR-II (IGF-II) AND THE IGF-II **MANNOSE** -6-PHOSPHATE RECEPTOR - THE MYTH CONTINUES
SO HORMONE RESEARCH, (1994) Vol. 41, Supp. 2, pp. 66-73.
ISSN: 0301-0163.
AU KIESS W (Reprint); YANG Y; KESSLER U; HOEFLICH A
AN 94:439891 SCISEARCH

L61 ANSWER 84 OF 141 MEDLINE on STN DUPLICATE 53
TI Mutational analysis of the cation-independent **mannose** 6-phosphate/insulin-like growth factor II receptor. A consensus casein kinase II site followed by 2 leucines near the carboxyl terminus is important for intracellular **targeting** of **lysosomal** enzymes.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Oct 25) 268 (30) 22338-46.
Journal code: 2985121R. ISSN: 0021-9258.
AU Chen H J; Remmler J; Delaney J C; Messner D J; Lobel P
AN 94042980 MEDLINE

L61 ANSWER 85 OF 141 MEDLINE on STN
TI Synthesis of phosphorylated oligosaccharides in lysozyme is enhanced by fusion to cathepsin D.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Sep 15) 268 (26) 19690-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Horst M; Mares M; Zabe M; Hummel M; Wiederanders B; Kirschke H; Hasilik A
AN 93374967 MEDLINE

L61 ANSWER 86 OF 141 MEDLINE on STN DUPLICATE 54
TI The role of glycosylation and phosphorylation in the expression of active human beta-glucuronidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Jun 5) 268 (16) 12193-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Shipley J M; Grubb J H; Sly W S
AN 93280197 MEDLINE

L61 ANSWER 87 OF 141 MEDLINE on STN DUPLICATE 55
TI Mouse procathepsin L lacking a functional glycosylation site is properly folded, stable, and secreted by NIH 3T3 cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 May 25) 268 (15) 11456-62.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kane S E
AN 93266607 MEDLINE

L61 ANSWER 88 OF 141 MEDLINE on STN DUPLICATE 56
TI Targeted disruption of the mouse cation-dependent **mannose** 6-phosphate receptor results in partial missorting of multiple lysosomal enzymes.
SO EMBO JOURNAL, (1993 Dec 15) 12 (13) 5225-35.
Journal code: 8208664. ISSN: 0261-4189.
AU Ludwig T; Ovitt C E; Bauer U; Hollinshead M; Remmler J; Lobel P; Ruther U; Hoflack B
AN 94085398 MEDLINE

L61 ANSWER 89 OF 141 MEDLINE on STN DUPLICATE 57
TI Targeted disruption of the M(r) 46,000 **mannose** 6-phosphate receptor **gene** in mice results in misrouting of lysosomal proteins.
SO EMBO JOURNAL, (1993 Dec 15) 12 (13) 5219-23.

Journal code: 8208664. ISSN: 0261-4189.
AU Koster A; Saftig P; Matzner U; von Figura K; Peters C; Pohlmann R
AN 94085397 MEDLINE

L61 ANSWER 90 OF 141 LIFESCI COPYRIGHT 2003 CSA on STN
TI Targeted disruption of the M sub(r) 46 000 **mannose** 6-phosphate receptor **gene** in mice results in misrouting of lysosomal proteins
SO EMBO J., (1993) vol. 12, no. 13, pp. 5219-5223.
AU Koester, A.; Saftig, P.; Matzner, U.; Von Figura, K.; Peters, C.; Pohlmann, R.
AN 94:30052 LIFESCI

L61 ANSWER 91 OF 141 MEDLINE on STN DUPLICATE 58
TI Overexpression of uteroferrin, a lysosomal acid phosphatase found in porcine uterine secretions, results in its high rate of secretion from transfected fibroblasts.
SO BIOLOGY OF REPRODUCTION, (1993 Dec) 49 (6) 1317-27.
Journal code: 0207224. ISSN: 0006-3363.
AU Ling P; Roberts R M
AN 94114784 MEDLINE

L61 ANSWER 92 OF 141 MEDLINE on STN
TI Differences in the endosomal distributions of the two **mannose** 6-phosphate receptors.
SO JOURNAL OF CELL BIOLOGY, (1993 Jun) 121 (5) 997-1010.
Journal code: 0375356. ISSN: 0021-9525.
AU Klumperman J; Hille A; Veenendaal T; Oorschot V; Stoorvogel W; von Figura K; Geuze H J
AN 93273805 MEDLINE

L61 ANSWER 93 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI THE MHC CLASS-II-ASSOCIATED INVARIANT CHAIN CONTAINS 2 ENDOSOMAL TARGETING SIGNALS WITHIN ITS CYTOPLASMIC TAIL
SO JOURNAL OF CELL SCIENCE, (NOV 1993) Vol. 106, Part 3, pp. 831-846.
ISSN: 0021-9533.
AU PIETERS J (Reprint); BAKKE O; DOBBERSTEIN B
AN 93:711351 SCISEARCH

L61 ANSWER 94 OF 141 MEDLINE on STN DUPLICATE 59
TI Increased LAMP-2 polylactosamine glycosylation is associated with its slower Golgi transit during establishment of a polarized MDCK epithelial monolayer.
SO MOLECULAR BIOLOGY OF THE CELL, (1993 Jun) 4 (6) 627-35.
Journal code: 9201390. ISSN: 1059-1524.
AU Nabi I R; Rodriguez-Boulan E
AN 93385651 MEDLINE

L61 ANSWER 95 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 60
TI Developmental expression of the IGF-II/**mannose** 6-phosphate receptor.
SO Molecular Reproduction and Development, (1993) 35/4 (408-413).
ISSN: 1040-452X CODEN: MREDEE
AU Nissley P.; Kiess W.; Sklar M.
AN 93227044 EMBASE

L61 ANSWER 96 OF 141 MEDLINE on STN DUPLICATE 61
TI **Mannose** 6-phosphate-independent **targeting** of **lysosomal** enzymes in I-cell disease B lymphoblasts.
SO JOURNAL OF CELL BIOLOGY, (1993 Oct) 123 (1) 99-108.
Journal code: 0375356. ISSN: 0021-9525.
AU Glickman J N; Kornfeld S
AN 94012972 MEDLINE

L61 ANSWER 97 OF 141 MEDLINE on STN DUPLICATE 62
TI A His-Leu-Leu **sequence** near the carboxyl terminus of the cytoplasmic domain of the cation-dependent **mannose** 6-phosphate receptor is necessary for the lysosomal enzyme sorting function.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1992 Aug 25) 267 (24) 17110-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Johnson K F; Kornfeld S
AN 92381022 MEDLINE

L61 ANSWER 98 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI THE PATHWAY AND TARGETING SIGNAL FOR DELIVERY OF THE INTEGRAL MEMBRANE GLYCOPROTEIN LEP100 TO LYSOSOMES
SO JOURNAL OF CELL BIOLOGY, (SEP 1992) Vol. 118, No. 5, pp. 1027-1040.
ISSN: 0021-9525.
AU MATHEWS P M (Reprint); MARTINIE J B; FAMBROUGH D M
AN 92:527847 SCISEARCH

L61 ANSWER 99 OF 141 MEDLINE on STN
TI Expression of the two **mannose** 6-phosphate receptors is spatially and temporally different during mouse embryogenesis.
SO DEVELOPMENT, (1992 Apr) 114 (4) 965-72.
Journal code: 8701744. ISSN: 0950-1991.
AU Matzner U; von Figura K; Pohlmann R
AN 92315943 MEDLINE

L61 ANSWER 100 OF 141 MEDLINE on STN DUPLICATE 63
TI Cationic defensins arise from charge-neutralized propeptides: a mechanism for avoiding leukocyte autocytotoxicity?.
SO JOURNAL OF LEUKOCYTE BIOLOGY, (1992 Jun) 51 (6) 634-9.
Journal code: 8405628. ISSN: 0741-5400.
AU Michaelson D; Rayner J; Couto M; Ganz T
AN 92308748 MEDLINE

L61 ANSWER 101 OF 141 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI Physiology of the insulin-like growth factor I and insulin-like growth factor II-**mannose**-6-phosphate receptors.
SO De la Cruz, L. F. [Editor]. International Congress Series, (1992) No. 996, pp. 271-294. International Congress Series; Regulation of growth hormone and somatic growth.
Publisher: Excerpta Medica 305 Keizersgracht, PO Box 1126, Amsterdam, Netherlands.
Meeting Info.: International Meeting on Regulation of Somatic Growth Lugo, Spain October 14-16, 1991
ISSN: 0531-5131. ISBN: 0-444-89192-7.
AU Burguera, B. (1); Werner, H.; Couce, M.; Roberts., C. T., Jr.; Leroith, D.; Caro, J. F. (1)
AN 1993:358548 BIOSIS

L61 ANSWER 102 OF 141 MEDLINE on STN DUPLICATE 64
TI The molecular and cellular biology of insulin-like growth factor II.
SO PROGRESS IN GROWTH FACTOR RESEARCH, (1992) 4 (3) 257-90. Ref: 200
Journal code: 8912757. ISSN: 0955-2235.
AU Nielsen F C
AN 93344528 MEDLINE

L61 ANSWER 103 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI THE EARLY AND LATE PROCESSING OF LYSOSOMAL-ENZYMES - PROTEOLYSIS AND COMPARTMENTATION
SO EXPERIENTIA, (15 FEB 1992) Vol. 48, No. 2, pp. 130-151.
ISSN: 0014-4754.
AU HASILIK A (Reprint)
AN 92:161744 SCISEARCH

L61 ANSWER 104 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI PURIFICATION AND CHARACTERIZATION OF HUMAN LYMPHOBLAST N-ACETYLGLUCOSAMINE-1-PHOSPHOTRANSFERASE
SO GLYCOBIOLOGY, (APR 1992) Vol. 2, No. 2, pp. 119-125. ISSN: 0959-6658.
AU ZHAO K W; YEH R; MILLER A L (Reprint)
AN 92:326169 SCISEARCH

L61 ANSWER 105 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI LYSOSOMAL ACID-PHOSPHATASE IS NOT INVOLVED IN THE DEPHOSPHORYLATION OF **MANNOSE** 6-PHOSPHATE CONTAINING LYSOSOMAL PROTEINS
SO EUROPEAN JOURNAL OF CELL BIOLOGY, (JUN 1992) Vol. 58, No. 1, pp. 57-61. ISSN: 0171-9335.
AU BRESCIANI R; PETERS C; VONFIGURA K (Reprint)
AN 92:409863 SCISEARCH

L61 ANSWER 106 OF 141 MEDLINE on STN
TI Mapping and molecular modeling of a recognition domain for **lysosomal** enzyme **targeting**.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991 Dec 5) 266 (34) 23365-72. Journal code: 2985121R. ISSN: 0021-9258.
AU Baranski T J; Koelsch G; Hartsuck J A; Kornfeld S
AN 92078213 MEDLINE

L61 ANSWER 107 OF 141 MEDLINE on STN DUPLICATE 65
TI Biosynthesis of glycosylated human lysozyme mutants.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991 Jul 25) 266 (21) 13914-9. Journal code: 2985121R. ISSN: 0021-9258.
AU Horst M; Harth N; Hasilik A
AN 91310675 MEDLINE

L61 ANSWER 108 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI BIOSYNTHESIS OF GLYCOSYLATED HUMAN LYSOZYME MUTANTS
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991) Vol. 266, No. 21, pp. 13914-13919.
AU HORST M; HARTH N; HASILIK A (Reprint)
AN 91:423535 SCISEARCH

L61 ANSWER 109 OF 141 MEDLINE on STN
TI Glycosidase inhibitors: inhibitors of N-linked oligosaccharide processing.
SO FASEB JOURNAL, (1991 Dec) 5 (15) 3055-63. Ref: 60 Journal code: 8804484. ISSN: 0892-6638.
AU Elbein A D
AN 92077332 MEDLINE

L61 ANSWER 110 OF 141 MEDLINE on STN DUPLICATE 66
TI Molecular recognition and **targeting** of **lysosomal** proteins.
SO CURRENT OPINION IN CELL BIOLOGY, (1991 Aug) 3 (4) 642-6. Ref: 23 Journal code: 8913428. ISSN: 0955-0674.
AU von Figura K
AN 92126329 MEDLINE

L61 ANSWER 111 OF 141 MEDLINE on STN DUPLICATE 67
TI Human mononuclear phagocytes express the insulin-like growth factor-II/ **mannose**-6-phosphate receptor.
SO AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY, (1991 Jun) 4 (6) 555-9. Journal code: 8917225. ISSN: 1044-1549.
AU Rom W N
AN 91274002 MEDLINE

L61 ANSWER 112 OF 141 MEDLINE on STN DUPLICATE 68
TI Human N-acetylgalactosamine-4-sulphatase: protein maturation and isolation of genomic clones.

SO BIOCHEMISTRY INTERNATIONAL, (1991 May) 24 (2) 209-15.
Journal code: 8100311. ISSN: 0158-5231.
AU Litjens T; Morris C P; Gibson G J; Beckmann K R; Hopwood J J
AN 92028992 MEDLINE

L61 ANSWER 113 OF 141 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI THE OVEREXPRESSED HUMAN 46-KDA **MANNOSE** 6-PHOSPHATE RECEPTOR MEDIATES ENDOCYTOSIS AND SORTING OF BETA GLUCURONIDASE.
SO PROC NATL ACAD SCI U S A, (1990) 87 (20), 8036-8040.
CODEN: PNASA6. ISSN: 0027-8424.
AU WATANABE H; GRUBB J H; SLY W S
AN 1991:24282 BIOSIS

L61 ANSWER 114 OF 141 MEDLINE on STN DUPLICATE 69
TI **Targeting** of a **lysosomal** membrane protein: a tyrosine-containing endocytosis signal in the cytoplasmic tail of lysosomal acid phosphatase is necessary and sufficient for **targeting** to **lysosomes**.
SO EMBO JOURNAL, (1990 Nov) 9 (11) 3497-506.
Journal code: 8208664. ISSN: 0261-4189.
AU Peters C; Braun M; Weber B; Wendland M; Schmidt B; Pohlmann R; Waheed A; von Figura K
AN 91006047 MEDLINE

L61 ANSWER 115 OF 141 MEDLINE on STN DUPLICATE 70
TI Biochemical and genetic analysis of an antigenic determinant found on N-linked oligosaccharides in Dictyostelium.
SO DEVELOPMENTAL GENETICS, (1990) 11 (5-6) 463-72.
Journal code: 7909963. ISSN: 0192-253X.
AU Freeze H H; Bush J M; Cardelli J
AN 91256510 MEDLINE

L61 ANSWER 116 OF 141 MEDLINE on STN DUPLICATE 71
TI Generation of a **lysosomal** enzyme **targeting** signal in the secretory protein pepsinogen.
SO CELL, (1990 Oct 19) 63 (2) 281-91.
Journal code: 0413066. ISSN: 0092-8674.
AU Baranski T J; Faust P L; Kornfeld S
AN 91004236 MEDLINE

L61 ANSWER 117 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 72
TI The potential of water-soluble polymeric carriers in targeted and site-specific drug delivery.
SO Journal of Controlled Release, (1990) 11/1-3 (279-290).
ISSN: 0168-3659 CODEN: JCREEC
AU Kopecek J.
AN 90070449 EMBASE

L61 ANSWER 118 OF 141 MEDLINE on STN DUPLICATE 73
TI Synthesis of a human lysosomal enzyme, beta-hexosaminidase B, using the baculovirus expression system.
SO PROTEIN EXPRESSION AND PURIFICATION, (1990 Nov) 1 (2) 111-20.
Journal code: 9101496. ISSN: 1046-5928.
AU Boose J A; Tifft C J; Proia R L; Myerowitz R
AN 92338853 MEDLINE

L61 ANSWER 119 OF 141 MEDLINE on STN DUPLICATE 74
TI Amino acid and carbohydrate composition of a lysosomal cysteine proteinase from Trypanosoma cruzi. Absence of phosphorylated **mannose** residues.
SO MOLECULAR AND BIOCHEMICAL PARASITOLOGY, (1990 Jan 1) 38 (1) 41-8.
Journal code: 8006324. ISSN: 0166-6851.
AU Cazzulo J J; Hellman U; Couso R; Parodi A J

AN 90205958 MEDLINE

L61 ANSWER 120 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 75
TI Analysis of the glycosylation and phosphorylation of the lysosomal enzyme, .beta.-hexosaminidase B, by site-directed mutagenesis.
SO Journal of Biological Chemistry, (1989) 264/13 (7692-7697).
ISSN: 0021-9258 CODEN: JBCHA3
AU Sonderfeld-Fresko S.; Proia R.L.
AN 89119230 EMBASE

L61 ANSWER 121 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Expression of the yeast aspartyl protease, proteinase A. Phosphorylation and binding to the **mannose** 6-phosphate receptor are altered by addition of cathepsin D **sequences**
SO Journal of Biological Chemistry (1989), 264(1), 479-88
CODEN: JBCHA3; ISSN: 0021-9258
AU Faust, Phyllis L.; Kornfeld, Stuart
AN 1989:53724 HCAPLUS
DN 110:53724

L61 ANSWER 122 OF 141 MEDLINE on STN DUPLICATE 76
TI Transport of proteins to the plant vacuole is not by bulk flow through the secretory system, and requires positive sorting information.
SO JOURNAL OF CELL BIOLOGY, (1989 Feb) 108 (2) 327-37.
Journal code: 0375356. ISSN: 0021-9525.
AU Dorel C; Voelker T A; Herman E M; Chrispeels M J
AN 89139554 MEDLINE

L61 ANSWER 123 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Lysosomal integral membrane glycoproteins are expressed at high levels in the inclusion bodies of I-cell disease fibroblasts.
SO Archives of Biochemistry and Biophysics, (1989) 271/1 (157-167).
ISSN: 0003-9861 CODEN: ABBIA4
AU Sandoval I.V.; Chen J.W.; Yuan L.; August J.T.
AN 89119867 EMBASE

L61 ANSWER 124 OF 141 MEDLINE on STN
TI Biosynthesis of lysosomal endopeptidases.
SO JOURNAL OF CELLULAR BIOCHEMISTRY, (1989 May) 40 (1) 31-41. Ref: 76
Journal code: 8205768. ISSN: 0730-2312.
AU Erickson A H
AN 89308920 MEDLINE

L61 ANSWER 125 OF 141 MEDLINE on STN DUPLICATE 77
TI Expression of human cation-independent **mannose** 6-phosphate receptor cDNA in receptor-negative mouse P388D1 cells following **gene** transfer.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1988 Nov 5) 263 (31) 16230-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kyle J W; Nolan C M; Oshima A; Sly W S
AN 89034089 MEDLINE

L61 ANSWER 126 OF 141 MEDLINE on STN DUPLICATE 78
TI Oligosaccharide structure and amino acid **sequence** of the major glycopeptides of mature human beta-hexosaminidase.
SO BIOCHEMISTRY, (1988 Jul 12) 27 (14) 5216-26.
Journal code: 0370623. ISSN: 0006-2960.
AU O'Dowd B F; Cumming D A; Gravel R A; Mahuran D
AN 89000740 MEDLINE

L61 ANSWER 127 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Proliferin secreted by cultured cells binds to **mannose**

6-phosphate receptors
SO Journal of Biological Chemistry (1988), 263(7), 3521-7
CODEN: JBCHA3; ISSN: 0021-9258
AU Lee, Se Jin; Nathans, Daniel
AN 1988:147903 HCAPLUS
DN 108:147903

L61 ANSWER 128 OF 141 MEDLINE on STN DUPLICATE 79
TI The human cation-independent **mannose** 6-phosphate receptor. Cloning and **sequence** of the full-length cDNA and expression of functional receptor in COS cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1988 Feb 15) 263 (5) 2553-62.
Journal code: 2985121R. ISSN: 0021-9258.
AU Oshima A; Nolan C M; Kyle J W; Grubb J H; Sly W S
AN 88115410 MEDLINE

L61 ANSWER 129 OF 141 MEDLINE on STN
TI Characterization and biological implications of membrane **lectins** in tumor, lymphoid and myeloid cells.
SO BIOCHIMIE, (1988 Nov) 70 (11) 1633-49. Ref: 227
Journal code: 1264604. ISSN: 0300-9084.
AU Monsigny M; Roche A C; Kieda C; Midoux P; Obrenovitch A
AN 89207603 MEDLINE

L61 ANSWER 130 OF 141 MEDLINE on STN
TI **Mannose** 6-phosphate receptors and their role in **targeting** proteins to **lysosomes**.
SO JOURNAL OF MEMBRANE BIOLOGY, (1988 Jul) 103 (1) 7-16. Ref: 83
Journal code: 0211301. ISSN: 0022-2631.
AU Pfeffer S R
AN 89037149 MEDLINE

L61 ANSWER 131 OF 141 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI RENIN A SECRETORY GLYCOPROTEIN ACQUIRES PHOSPHOMANNOSYL RESIDUES.
SO J CELL BIOL, (1987) 105 (5), 1947-1956.
CODEN: JCLBA3. ISSN: 0021-9525.
AU FAUST P L; CHIRGWIN J M; KORNFELD S
AN 1988:89989 BIOSIS

L61 ANSWER 132 OF 141 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 80
TI Expression of human cathepsin D in Xenopus oocytes: Phosphorylation and intracellular targetting.
SO Journal of Cell Biology, (1987) 105/5 (1937-1945).
ISSN: 0021-9525 CODEN: JCLBA3
AU Faust P.L.; Wall D.A.; Perara E.; Lingappa V.R.; Kornfeld S.
AN 88019045 EMBASE

L61 ANSWER 133 OF 141 MEDLINE on STN DUPLICATE 81
TI Trafficking of lysosomal enzymes.
SO FASEB JOURNAL, (1987 Dec) 1 (6) 462-8. Ref: 40
Journal code: 8804484. ISSN: 0892-6638.
AU Kornfeld S
AN 88056049 MEDLINE

L61 ANSWER 134 OF 141 MEDLINE on STN DUPLICATE 82
TI Properties of N-acetylglucosamine 1-phosphotransferase from human lymphoblasts.
SO BIOCHEMICAL JOURNAL, (1987 Nov 15) 248 (1) 151-9.
Journal code: 2984726R. ISSN: 0264-6021.
AU Little L; Alcouloumre M; Drotar A M; Herman S; Robertson R; Yeh R Y; Miller A L
AN 88133837 MEDLINE

L61 ANSWER 135 OF 141 MEDLINE on STN DUPLICATE 83
TI **Lectin**-specific **targeting** of **lysosomal** enzymes to reticuloendothelial cells.
SO METHODS IN ENZYMOLOGY, (1987) 149 25-42.
Journal code: 0212271. ISSN: 0076-6879.
AU Murray G J
AN 88093788 MEDLINE

L61 ANSWER 136 OF 141 LIFESCI COPYRIGHT 2003 CSA on STN
TI Using **recombinant** DNA techniques to study protein targeting in the eucaryotic cell.
ANNUAL REVIEW OF CELL BIOLOGY.
SO (1985) vol. 1, pp. 403-445.
ISBN: 0-8243-3101-X.
AU Garoff, H.; Palade, G.E. [editor]; Alberts, B.M. [editor]; Spudich, J.A. [editor]
AN 85:86706 LIFESCI

L61 ANSWER 137 OF 141 LIFESCI COPYRIGHT 2003 CSA on STN
TI Protein sorting in the secretory pathway.
SO CURR. TOP. MEMBR. TRANSP., (1985) vol. 24, pp. 252-280.
AU Rodriguez-Boulan, E.; Misek, D.E.; de Salas, D.V.; Salas, P.J.I.; Bard, E.
AN 85:71604 LIFESCI

L61 ANSWER 138 OF 141 MEDLINE on STN DUPLICATE 84
TI Identification and characterization of cells deficient in the **mannose** 6-phosphate receptor: evidence for an alternate pathway for **lysosomal** enzyme **targeting**.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1983 Feb) 80 (3) 775-9.
Journal code: 7505876. ISSN: 0027-8424.
AU Gabel C A; Goldberg D E; Kornfeld S
AN 83144012 MEDLINE

L61 ANSWER 139 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Membrane fusion activity of reconstituted vesicles of influenza virus hemagglutinin glycoproteins
SO Biochimica et Biophysica Acta (1983), 733(2), 286-90
CODEN: BBACAQ; ISSN: 0006-3002
AU Kawasaki, Kazunori; Sato, Satoshi B.; Ohnishi, Shunichi
AN 1983:538005 HCAPLUS
DN 99:138005

L61 ANSWER 140 OF 141 MEDLINE on STN
TI Structural studies of the endoglycosidase H-resistant oligosaccharides present on human beta-glucuronidase.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1982 Sep 25) 257 (18) 10861-8.
Journal code: 2985121R. ISSN: 0021-9258.
AU Howard D R; Natowicz M; Baenziger J U
AN 82265799 MEDLINE

L61 ANSWER 141 OF 141 MEDLINE on STN DUPLICATE 85
TI Fibroblasts from patients with I-cell disease and pseudo-Hurler polydystrophy are deficient in uridine 5'-diphosphate-N-acetylglucosamine: glycoprotein N-acetylglucosaminylphosphotransferase activity.
SO JOURNAL OF CLINICAL INVESTIGATION, (1981 May) 67 (5) 1574-9.
Journal code: 7802877. ISSN: 0021-9738.
AU Reitman M L; Varki A; Kornfeld S
AN 81192346 MEDLINE

=> s l12 and glucosidase#
FILE 'MEDLINE'
10022 GLUCOSIDASE#

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L62          21 L1 AND GLUCOSIDASE#

FILE 'SCISEARCH'
          7752 GLUCOSIDASE#
L63          19 L2 AND GLUCOSIDASE#

FILE 'LIFESCI'
          3858 GLUCOSIDASE#
L64           9 L3 AND GLUCOSIDASE#

FILE 'BIOTECHDS'
          3042 GLUCOSIDASE#
L65           1 L4 AND GLUCOSIDASE#

FILE 'BIOSIS'
         10653 GLUCOSIDASE#
L66          22 L5 AND GLUCOSIDASE#

FILE 'EMBASE'
          8954 GLUCOSIDASE#
L67          16 L6 AND GLUCOSIDASE#

FILE 'HCAPLUS'
         15609 GLUCOSIDASE#
L68          25 L7 AND GLUCOSIDASE#

FILE 'NTIS'
            91 GLUCOSIDASE#
L69          0 L8 AND GLUCOSIDASE#

FILE 'ESBIOBASE'
          5065 GLUCOSIDASE#
L70          10 L9 AND GLUCOSIDASE#

FILE 'BIOTECHNO'
          4163 GLUCOSIDASE#
L71          12 L10 AND GLUCOSIDASE#

FILE 'WPIDS'
          1371 GLUCOSIDASE#
L72           0 L11 AND GLUCOSIDASE#

TOTAL FOR ALL FILES
L73         135 L12 AND GLUCOSIDASE#

=> s l73 not 2002-2003/py
FILE 'MEDLINE'
        898624 2002-2003/PY
L74          17 L62 NOT 2002-2003/PY

FILE 'SCISEARCH'
       1628347 2002-2003/PY
L75          16 L63 NOT 2002-2003/PY

FILE 'LIFESCI'
        137782 2002-2003/PY
L76           6 L64 NOT 2002-2003/PY

FILE 'BIOTECHDS'
         36013 2002-2003/PY
L77           1 L65 NOT 2002-2003/PY

FILE 'BIOSIS'
        812724 2002-2003/PY
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L78          21 L66 NOT 2002-2003/PY

FILE 'EMBASE'
        739028 2002-2003/PY
L79          14 L67 NOT 2002-2003/PY

FILE 'HCAPLUS'
       1765463 2002-2003/PY
L80          18 L68 NOT 2002-2003/PY

FILE 'NTIS'
         17588 2002-2003/PY
L81           0 L69 NOT 2002-2003/PY

FILE 'ESBIOBASE'
        467486 2002-2003/PY
L82           9 L70 NOT 2002-2003/PY

FILE 'BIOTECHNO'
        203275 2002-2003/PY
L83          10 L71 NOT 2002-2003/PY

FILE 'WPIDS'
       1736742 2002-2003/PY
L84           0 L72 NOT 2002-2003/PY

TOTAL FOR ALL FILES
L85         112 L73 NOT 2002-2003/PY

=> dup rem l85
PROCESSING COMPLETED FOR L85
L86          41 DUP REM L85 (71 DUPLICATES REMOVED)

=> d tot

L86   ANSWER 1 OF 41  Elsevier BIOBASE  COPYRIGHT 2003 Elsevier Science B.V. on
      STN
AN    2001238473   ESBIOBASE
TI    Glycosidase active site mutations in human .alpha.-L-iduronidase
AU    Brooks D.A.; Fabrega S.; Hein L.K.; Parkinson E.J.; Durand P.; Yogalingam
      G.; Matte U.; Giugliani R.; Dasvarma A.; Eslahpazire J.; Henrissat B.;
      Mornon J.-P.; Hopwood J.J.; Lehn P.
CS    D.A. Brooks, Lysosomal Diseases Research Unit, Department of Chemical
      Pathology, Women's and Children's Hospital, King William Road, North
      Adelaide, SA 5006, Australia.
SO    Glycobiology, (2001), 11/9 (741-750), 42 reference(s)
      CODEN: GLYCE3  ISSN: 0959-6658
DT    Journal; Article
CY    United Kingdom
LA    English
SL    English

L86   ANSWER 2 OF 41  Elsevier BIOBASE  COPYRIGHT 2003 Elsevier Science B.V. on
      STN
AN    2001042843   ESBIOBASE
TI    Chondroitin sulfate is involved in lysosomal transport of lysozyme in
      U937 cells
AU    Lemansky P.; Hasilik A.
CS    A. Hasilik, Philipps-Universitat Marburg, Inst. fur Physiol. Chemie,
      Karl-von-Frisch-Strasse 1, 35033 Marburg, Germany.
      E-mail: hasilika@mailer.uni-marburg.de
SO    Journal of Cell Science, (2001), 114/2 (345-352), 37 reference(s)
      CODEN: JNCSAI  ISSN: 0021-9533
DT    Journal; Article
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CY United Kingdom
LA English
SL English

L86 ANSWER 3 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 1
TI The **lysosomal targeting** and intracellular metabolism of trypanosome lytic factor by Trypanosoma brucei brucei.
SO Molecular and Biochemical Parasitology, (2001) 115/2 (227-237).
Refs: 49
ISSN: 0166-6851 CODEN: MBIPDP
AU Shimamura M.; Hager K.M.; Hajduk S.L.
AN 2001221168 EMBASE

L86 ANSWER 4 OF 41 MEDLINE on STN DUPLICATE 2
TI GalNAc-alpha -O-benzyl inhibits sialylation of de Novo synthesized apical but not basolateral sialoglycoproteins and blocks lysosomal enzyme processing in a post-trans-Golgi network compartment.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Jun 23) 275 (25) 18785-93.
Journal code: 2985121R. ISSN: 0021-9258.
AU Ulloa F; Franci C; Real F X
AN 2000396451 MEDLINE

L86 ANSWER 5 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI **Lysosomal** cysteine protease, cathepsin H, is **targeted** to **lysosomes** by the mannose 6-phosphate-independent system in rat hepatocytes
SO BIOLOGICAL & PHARMACEUTICAL BULLETIN, (JUL 2000) Vol. 23, No. 7, pp. 805-809.
Publisher: PHARMACEUTICAL SOC JAPAN, 2-12-15-201 SHIBUYA, SHIBUYA-KU, TOKYO 150, JAPAN.
ISSN: 0918-6158.
AU Tanaka Y; Tanaka R; Himeno M (Reprint)
AN 2000:528021 SCISEARCH

L86 ANSWER 6 OF 41 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Fate and sorting of acid .beta.-**glucosidase** in transgenic mammalian cells
SO Molecular Genetics and Metabolism (2000), 70(4), 281-294
CODEN: MGMEFF; ISSN: 1096-7192
AU Leonova, Tatyana; Grabowski, Gregory A.
AN 2000:653590 HCAPLUS
DN 134:3589

L86 ANSWER 7 OF 41 MEDLINE on STN DUPLICATE 3
TI Systemic correction of the muscle disorder glycogen storage disease type II after hepatic targeting of a modified adenovirus vector encoding human acid-alpha-**glucosidase**.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1999 Aug 3) 96 (16) 8861-6.
Journal code: 7505876. ISSN: 0027-8424.
AU Amalfitano A; McVie-Wylie A J; Hu H; Dawson T L; Raben N; Plotz P; Chen Y T
AN 1999362676 MEDLINE

L86 ANSWER 8 OF 41 MEDLINE on STN DUPLICATE 4
TI Promotion of tyrosinase folding in COS 7 cells by calnexin.
SO JOURNAL OF BIOCHEMISTRY, (1999 Jan) 125 (1) 82-9.
Journal code: 0376600. ISSN: 0021-924X.
AU Toyofuku K; Wada I; Hirosaki K; Park J S; Hori Y; Jimbow K
AN 1999098828 MEDLINE

L86 ANSWER 9 OF 41 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Targeted disruption of the acid .alpha.-**glucosidase** gene in mice

causes an illness with critical features of both infantile and adult human glycogen storage disease type II
SO Journal of Biological Chemistry (1998), 273(30), 19086-19092
CODEN: JBCHA3; ISSN: 0021-9258
AU Raben, Nina; Nagaraju, Kanneboyina; Lee, Eunice; Kessler, Paul; Byrne, Barry; Lee, Laura; LaMarca, Mary; King, Christina; Ward, Jerrold; Sauer, Brian; Plotz, Paul
AN 1998:515866 HCAPLUS
DN 129:215243

L86 ANSWER 10 OF 41 MEDLINE on STN DUPLICATE 5
TI Complete correction of acid alpha-**glucosidase** deficiency in Pompe disease fibroblasts in vitro, and **lysosomally targeted** expression in neonatal rat cardiac and skeletal muscle.
SO GENE THERAPY, (1998 Apr) 5 (4) 473-80.
Journal code: 9421525. ISSN: 0969-7128.
AU Pauly D F; Johns D C; Matelis L A; Lawrence J H; Byrne B J; Kessler P D
AN 1998276755 MEDLINE

L86 ANSWER 11 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Treatment of central nervous system inflammation with inhibitors of basement membrane degradation
SO IMMUNOLOGY AND CELL BIOLOGY, (FEB 1998) Vol. 76, No. 1, pp. 104-113.
Publisher: BLACKWELL SCIENCE, 54 UNIVERSITY ST, P O BOX 378, CARLTON VICTORIA 3053, AUSTRALIA.
ISSN: 0818-9641.
AU Parish C R (Reprint); Hindmarsh E J; Bartlett M R; Staykova M A; Cowden W B; Willenborg D O
AN 1998:227418 SCISEARCH

L86 ANSWER 12 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Carbohydrate structures of recombinant human alpha-L-iduronidase secreted by Chinese hamster ovary cells
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (5 SEP 1997) Vol. 272, No. 36, pp. 22758-22765.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Zhao K W; Faull K F; Kakkis E D; Neufeld E F (Reprint)
AN 97:688118 SCISEARCH

L86 ANSWER 13 OF 41 MEDLINE on STN DUPLICATE 6
TI Retroviral transfer of acid alpha-**glucosidase** cDNA to enzyme-deficient myoblasts results in phenotypic spread of the genotypic correction by both secretion and fusion.
SO HUMAN GENE THERAPY, (1997 Sep 1) 8 (13) 1555-63.
Journal code: 9008950. ISSN: 1043-0342.
AU Zaretsky J Z; Candotti F; Boerkoel C; Adams E M; Yewdell J W; Blaese R M; Plotz P H
AN 97463304 MEDLINE

L86 ANSWER 14 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Functional characterization of the N-glycosylation sites of human acid sphingomyelinase by site-directed mutagenesis
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (15 JAN 1997) Vol. 243, No. 1-2, pp. 511-517.
Publisher: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
ISSN: 0014-2956.
AU Ferlinz K; Hurwitz R; Moczall H; Lansmann S; Schuchman E H; Sandhoff K (Reprint)
AN 97:106473 SCISEARCH

L86 ANSWER 15 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI Biosynthesis, processing, and targeting of sphingolipid activator protein

(SAP) precursor in cultured human fibroblasts - Mannose 6-phosphate receptor-independent endocytosis of SAP precursor
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (13 DEC 1996) Vol. 271, No. 50, pp. 32438-32446.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
AU Vielhaber G; Hurwitz R; Sandhoff K (Reprint)
AN 97:2990 SCISEARCH

L86 ANSWER 16 OF 41 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1996175426 ESBIOBASE
TI Purification and characterization of human lymphoblast N-acetylglucosamine-1-phosphodiester .alpha.-N-acetylglucosaminidase
AU Page T.; Zhao K.-W.; Tao L.; Miller A.L.
CS A.L. Miller, Department Neurosciences 0624, University of California, San Diego, La Jolla, CA 92093-0624, United States.
SO Glycobiology, (1996), 6/6 (619-626)
CODEN: GLYCE3 ISSN: 0959-6658
DT Journal; Article
CY United Kingdom
LA English
SL English

L86 ANSWER 17 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI GLYCOSYLATION AND PHOSPHORYLATION OF LYSOSOMAL GLYCOSYLASPARAGINASE
SO ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (01 APR 1996) Vol. 328, No. 1, pp. 73-77.
ISSN: 0003-9861.
AU PARK H; VETTESEDADEY M; ARONSON N N (Reprint)
AN 96:279648 SCISEARCH

L86 ANSWER 18 OF 41 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
AN 1994101223 ESBIOBASE
TI Lysine is a common determinant for mannose phosphorylation of lysosomal proteins
AU Cuozzo J.W.; Sahagian G.G.
CS G.G. Sahagian, Dept. of Physiology, Tufts University, 136 Harrison Ave., Boston, MA 02111, United States.
SO Journal of Biological Chemistry, (1994), 269/20 (14490-14496)
CODEN: JBCHA3 ISSN: 0021-9258
DT Journal; Article
CY United States
LA English
SL English

L86 ANSWER 19 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 7
TI LYSOSOMAL STORAGE DISEASES - CELLULAR PATHOLOGY, CLINICAL AND GENETIC-HETEROGENEITY, THERAPY
SO ANNALES DE BIOLOGIE CLINIQUE, (1994) Vol. 52, No. 10, pp. 721-728.
ISSN: 0003-3898.
AU REUSER A J J (Reprint); KROOS M A; VISSER W J; WILLEMSEN R
AN 95:105243 SCISEARCH

L86 ANSWER 20 OF 41 MEDLINE on STN
TI Clathrin heavy chain functions in sorting and secretion of lysosomal enzymes in Dictyostelium discoideum.
SO JOURNAL OF CELL BIOLOGY, (1994 Jul) 126 (2) 343-52.
Journal code: 0375356. ISSN: 0021-9525.
AU Ruscetti T; Cardelli J A; Niswonger M L; O'Halloran T J
AN 94308265 MEDLINE

L86 ANSWER 21 OF 41 MEDLINE on STN DUPLICATE 8
TI Structural and functional changes of lysosomal acid alpha-**glucosidase** during intracellular transport and maturation.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Jan 25) 268 (3) 2223-31.
Journal code: 2985121R. ISSN: 0021-9258.
AU Wisselaar H A; Kroos M A; Hermans M M; van Beeumen J; Reuser A J
AN 93131986 MEDLINE

L86 ANSWER 22 OF 41 MEDLINE on STN DUPLICATE 9
TI An in situ study of beta-**glucosidase** activity in normal and Gaucher fibroblasts with fluorogenic probes.
SO CELL BIOCHEMISTRY AND FUNCTION, (1993 Sep) 11 (3) 167-77.
Journal code: 8305874. ISSN: 0263-6484.
AU Kohen E; Kohen C; Hirschberg J G; Santus R; Grabowski G; Mangel W; Gatt S; Prince J
AN 94006955 MEDLINE

L86 ANSWER 23 OF 41 MEDLINE on STN DUPLICATE 10
TI Glycosidase inhibitors: inhibitors of N-linked oligosaccharide processing.
SO FASEB JOURNAL, (1991 Dec) 5 (15) 3055-63. Ref: 60
Journal code: 8804484. ISSN: 0892-6638.
AU Elbein A D
AN 92077332 MEDLINE

L86 ANSWER 24 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI MANNOSE 6-PHOSPHATE RECEPTOR INDEPENDENT **TARGETING** OF **LYSOSOMAL**-ENZYMES
SO CELL BIOLOGY INTERNATIONAL REPORTS, (DEC 1991) Vol. 15, No. 12, pp. 1167-1173.
ISSN: 0309-1651.
AU GINSEL L A (Reprint); FRANSEN J A M
AN 92:71499 SCISEARCH

L86 ANSWER 25 OF 41 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Lysosomal enzyme secretory mutants of Dictyostelium discoideum
SO Journal of Cell Science (1990), 96(3), 491-500
CODEN: JNCSAI; ISSN: 0021-9533
AU Ebert, David L.; Jordan, Kevin B.; Dimond, Randall L.
AN 1990:587939 HCAPLUS
DN 113:187939

L86 ANSWER 26 OF 41 MEDLINE on STN DUPLICATE 11
TI The effects of altered N-linked oligosaccharide structures on maturation and **targeting** of **lysosomal** enzymes in Dictyostelium discoideum.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 Nov 15) 264 (32) 19278-86.
Journal code: 2985121R. ISSN: 0021-9258.
AU Freeze H H; Koza-Taylor P; Saunders A; Cardelli J A
AN 90037065 MEDLINE

L86 ANSWER 27 OF 41 MEDLINE on STN DUPLICATE 12
TI Processing, transport, and secretion of the lysosomal enzyme acid phosphatase in Dictyostelium discoideum.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 May 5) 264 (13) 7630-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Bush J M; Cardelli J A
AN 89214214 MEDLINE

L86 ANSWER 28 OF 41 MEDLINE on STN DUPLICATE 13
TI Role of acidic intracellular compartments in the biosynthesis of Dictyostelium lysosomal enzymes. The weak bases ammonium chloride and chloroquine differentially affect proteolytic processing and sorting.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 Feb 25) 264 (6) 3454-63.
Journal code: 2985121R. ISSN: 0021-9258.

AU Cardelli J A; Richardson J; Miears D
AN 89123476 MEDLINE

L86 ANSWER 29 OF 41 MEDLINE on STN DUPLICATE 14
TI A Dictyostelium discoideum mutant that missorts and oversecretes lysosomal enzyme precursors is defective in endocytosis.
SO JOURNAL OF CELL BIOLOGY, (1989 Oct) 109 (4 Pt 1) 1445-56.
Journal code: 0375356. ISSN: 0021-9525.
AU Ebert D L; Freeze H H; Richardson J; Dimond R L; Cardelli J A
AN 90009021 MEDLINE

L86 ANSWER 30 OF 41 LIFESCI COPYRIGHT 2003 CSA on STN
TI A Dictyostelium discoideum mutant that missorts and oversecretes lysosomal enzyme precursors is defective in endocytosis.
SO J. CELL BIOL., (1989) vol. 109, no. 4, pt. 1, pp. 1445-1456.
AU Ebert, D.L.; Freeze, H.H.; Richardson, J.; Dimond, R.L.; Cardelli, J.A.
AN 89:59809 LIFESCI

L86 ANSWER 31 OF 41 MEDLINE on STN DUPLICATE 15
TI Inhibition of early but not late proteolytic processing events leads to the missorting and oversecretion of precursor forms of lysosomal enzymes in Dictyostelium discoideum.
SO JOURNAL OF CELL BIOLOGY, (1988 Dec) 107 (6 Pt 1) 2097-107.
Journal code: 0375356. ISSN: 0021-9525.
AU Richardson J M; Woychik N A; Ebert D L; Dimond R L; Cardelli J A
AN 89066875 MEDLINE

L86 ANSWER 32 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI GAUCHER DISEASE RELATIONSHIP OF NATURAL OR CREATED GENETIC MUTATIONS TO THE PROPERTIES OF THE EXPRESSED ACID BETA **GLUCOSIDASE**.
SO 39TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF HUMAN GENETICS, NEW ORLEANS, LOUISIANA, USA, OCTOBER 12-15, 1988. AM J HUM GENET. (1988) 43 (3 SUPPL), A184.
CODEN: AJHGAG. ISSN: 0002-9297.
AU GRACE M E; BERGMAN J E; RORMAN E G; GRAVES P N; SMITH F I; GRABOWSKI G A
AN 1989:67120 BIOSIS

L86 ANSWER 33 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 16
TI DEVELOPMENTAL CHANGES IN GLYCOSYLATION AND **TARGETING** OF **LYSOSOMAL** PROTEINS IN DICTYOSTELIUM-DISCOIDEUM.
SO DIFFERENTIATION, (1988) 37 (1), 7-13.
CODEN: DFFNAW. ISSN: 0301-4681.
AU JUDELSON H S; DIMOND R L
AN 1988:314517 BIOSIS

L86 ANSWER 34 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI THE ROLE OF OLIGOSACCHARIDE SIDE-CHAINS IN THE TRANSPORT AND **TARGETING** OF **LYSOSOMAL** ENZYMES IN DICTYOSTELIUM-DISCOIDEUM.
SO TWENTY-SEVENTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, ST. LOUIS, MISSOURI, USA, NOVEMBER 16-20, 1987. J CELL BIOL. (1987) 105 (4 PART 2), 249A.
CODEN: JCLBA3. ISSN: 0021-9525.
AU BUSH J M; EBERT D L; CHERVENAK R; CARDELLI J A
AN 1988:86027 BIOSIS

L86 ANSWER 35 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI THE IMPORTANCE OF PROTEOLYTIC PROCESSING IN THE TRANSPORT AND **TARGETING** OF **LYSOSOMAL** ENZYMES IN DICTYOSTELIUM-DISCOIDEUM.
SO TWENTY-SEVENTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, ST. LOUIS, MISSOURI, USA, NOVEMBER 16-20, 1987. J CELL BIOL. (1987) 105 (4 PART 2), 249A.

CODEN: JCLBA3. ISSN: 0021-9525.
AU RICHARDSON J M; WOYCHIK N A; BUSH J M; DIMOND R L; CARDELLI J A
AN 1988:86028 BIOSIS

L86 ANSWER 36 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI THE ROLE OF ACIDIC INTRACELLULAR COMPARTMENTS IN THE PROTEOLYTIC PROCESSING AND **TARGETING** OF **LYSOSOMAL** ENZYMES IN DICTYOSTELIUM-DISCOIDEUM.
SO TWENTY-SEVENTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, ST. LOUIS, MISSOURI, USA, NOVEMBER 16-20, 1987. J CELL BIOL. (1987) 105 (4 PART 2), 249A.
CODEN: JCLBA3. ISSN: 0021-9525.
AU CARDELLI J A; RICHARDSON J M; MIEARS D L
AN 1988:86026 BIOSIS

L86 ANSWER 37 OF 41 MEDLINE on STN
TI Lectin-specific **targeting** of **lysosomal** enzymes to reticuloendothelial cells.
SO METHODS IN ENZYMOLOGY, (1987) 149 25-42.
Journal code: 0212271. ISSN: 0076-6879.
AU Murray G J
AN 88093788 MEDLINE

L86 ANSWER 38 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI **TARGETING** OF **LYSOSOMAL** ENZYMES IN CELLS THAT LACK MANNOSE-6-PHOSPHATE RECEPTORS.
SO TWENTY-FIFTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, ATLANTA, GA., USA, NOV. 18-22, 1985. J CELL BIOL. (1985) 101 (5 PART 2), 68A.
CODEN: JCLBA3. ISSN: 0021-9525.
AU CARDELLI J A; GOLUMBESKI G S; EBERT D L; DIMOND R L
AN 1986:40868 BIOSIS

L86 ANSWER 39 OF 41 MEDLINE on STN DUPLICATE 17
TI Binding and internalization of lysosomal enzymes by primary cultures of rat glia.
SO JOURNAL OF NEUROSCIENCE RESEARCH, (1985) 14 (1) 35-47.
Journal code: 7600111. ISSN: 0360-4012.
AU Hill D F; Bullock P N; Chiappelli F; Rome L H
AN 85264868 MEDLINE

L86 ANSWER 40 OF 41 MEDLINE on STN DUPLICATE 18
TI Immunocytochemistry of lysosomal hydrolases and their precursor forms in normal and mutant human cells.
SO HISTOCHEMICAL JOURNAL, (1984 Sep) 16 (9) 941-54.
Journal code: 0163161. ISSN: 0018-2214.
AU Van Dongen J M; Barneveld R A; Geuze H J; Galjaard H
AN 85006377 MEDLINE

L86 ANSWER 41 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 19
TI LYSOSOMAL ENZYME PHOSPHORYLATION IN MOUSE LYMPHOMA CELL LINES WITH ALTERED ASPARAGINE LINKED OLIGO SACCHARIDES.
SO J BIOL CHEM, (1982) 257 (18), 10605-10612.
CODEN: JBCHA3. ISSN: 0021-9258.
AU GABEL C A; KORNFELD S
AN 1983:329682 BIOSIS

=> d ab 7,9,10,13,19,21,37,39,41

L86 ANSWER 7 OF 41 MEDLINE on STN DUPLICATE 3
AB This report demonstrates that a single intravenous administration of a gene therapy vector can potentially result in the correction of all

affected muscles in a mouse model of a human genetic muscle disease. These results were achieved by capitalizing both on the positive attributes of modified adenovirus-based vectoring systems and receptor-mediated **lysosomal targeting** of enzymes. The muscle disease treated, glycogen storage disease type II, is a lysosomal storage disorder that manifests as a progressive myopathy, secondary to massive glycogen accumulations in the skeletal and/or cardiac muscles of affected individuals. We demonstrated that a single intravenous administration of a modified Ad vector encoding human acid alpha-**glucosidase** (GAA) resulted in efficient hepatic transduction and secretion of high levels of the precursor GAA proenzyme into the plasma of treated animals. Subsequently, systemic distribution and uptake of the proenzyme into the skeletal and cardiac muscles of the GAA-knockout mouse was confirmed. As a result, systemic decreases (and correction) of the glycogen accumulations in a variety of muscle tissues was demonstrated. This model can potentially be expanded to include the treatment of other lysosomal enzyme disorders. Lessons learned from systemic genetic therapy of muscle disorders also should have implications for other muscle diseases, such as the muscular dystrophies.

L86 ANSWER 9 OF 41 HCAPLUS COPYRIGHT 2003 ACS on STN
AB The authors have used gene targeting to create a mouse model of glycogen storage disease type II, a disease in which distinct clin. phenotypes present at different ages. As in the severe human infantile disease (Pompe Syndrome), mice homozygous for disruption of the acid .alpha.-**glucosidase** gene (6neo/6neo) lack enzyme activity and begin to accumulate glycogen in cardiac and skeletal muscle lysosomes by 3 wk of age, with a progressive increase thereafter. By 3.5 wk of age, these mice have markedly reduced mobility and strength. They grow normally, however, reach adulthood, remain fertile, and, as in the human adult disease, older mice accumulate glycogen in the diaphragm. By 8-9 mo of age animals develop obvious muscle wasting and a weak, waddling gait. This model, therefore, recapitulates crit. features of both the infantile and the adult forms of the disease at a pace suitable for the evaluation of enzyme or gene replacement. In contrast, in a second model, mutant mice with deletion of exon 6 (.DELTA.6/.DELTA.6), like the recently published acid .alpha.-**glucosidase** knockout with disruption of exon 13 (Bijvoet, A. G., van de Kamp, E. H., Kroos, M., Ding, J. H., Yang, B. Z., Visser, P., Bakker, C. E., Verbeet, M. P., Oostra, B. A., Reuser, A. J. J., and van der Ploeg, A. T. (1998) Hum. Mol. Genet. 7, 53-62), have unimpaired strength and mobility (up to 6.5 mo of age) despite indistinguishable biochem. and pathol. changes. The genetic background of the mouse strains appears to contribute to the differences among the three models.

L86 ANSWER 10 OF 41 MEDLINE on STN DUPLICATE 5
AB The enzyme acid alpha-**glucosidase** catalyzes the breakdown of lysosomal glycogen. Absence of this enzyme results in infantile Pompe disease, characterized by hypertrophic cardiomyopathy, skeletal muscle weakness and fatal heart failure by 2 years of age. We have examined the possibility of gene replacement therapy for this disease, by constructing an E1-deleted recombinant adenovirus encoding human acid alpha-**glucosidase** (Ad-GAA). The dose-response in fibroblasts from patients with Pompe disease transduced with this vector is linear over the range tested (one to 2000 plaque forming units (p.f.u.) of Ad-GAA per cell), and acid alpha-**glucosidase** activity comparable to that of normal fibroblasts is achieved at 100 p.f.u. per cell. Targeting of the recombinant protein to the lysosomal compartment was confirmed by immunocytochemistry. In vivo expression was examined by injecting Ad-GAA into newborn rats; intracardiac administration produced 10 times the normal level of acid alpha-**glucosidase** activity in whole heart lysates, while a hind-limb i.m. injection increased activity in that muscle to six times the normal level. Western blotting of these tissues defected species at 76 kDa consistent with the size of processed lysosomal

enzyme, and levels of expression as high as 1.0 mg recombinant protein per gram of tissue wet weight were produced. These data demonstrate high-level, lysosomal expression of recombinant acid alpha-**glucosidase** in treated target tissues and support the feasibility of gene replacement strategies for Pompe disease.

L86 ANSWER 13 OF 41 MEDLINE on STN DUPLICATE 6
AB Myoblasts have properties that make them suitable vehicles for gene replacement therapy, and **lysosomal** storage diseases are attractive **targets** for such therapy. Type II Glycogen Storage Disease, a deficiency of acid alpha-**glucosidase** (GAA), results in the abnormal accumulation of glycogen in skeletal and cardiac muscle lysosomes. The varied manifestations of the enzyme deficiency in affected patient are ultimately lethal. We used a retroviral vector carrying the cDNA encoding for GAA to replace the enzyme in deficient myoblasts and fibroblasts and analyzed the properties of the transduced cells. The transferred gene was efficiently expressed, and the de novo-synthesized enzyme reached lysosomes where it digested glycogen. In enzyme-deficient myoblasts after transduction, enzyme activity rose to more than 30-fold higher than in normal myoblasts and increased about five-fold more when the cells were allowed to differentiate into myotubes. The transduced cells secreted GAA that was endocytosed via the mannose-6-phosphate receptor into lysosomes of deficient cells and digested glycogen. Moreover, the transduced myoblasts were able to fuse with and provide enzyme for GAA-deficient fusion partners. Thus, the gene-corrected cells, which appear otherwise normal, may ultimately provide phenotypic correction to neighboring GAA-deficient cells by fusion and to distant cells by secretion and uptake mechanisms.

L86 ANSWER 19 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 7
AB Lysosomal storage diseases are genetically determined metabolic diseases characterized by dysmorphology and dysfunction of the lysosomal system. The lysosomal pathology can have different causes; these are (i) the deficiency of a lysosomal enzyme or subunit thereof, (ii) the deficiency of a protein assisting one or more lysosomal enzymes in their catalytic function by activation and/or stabilization, or by substrate presentation, (iii) the deficiency or dysfunction of a lysosomal membrane carrier protein essential for the export of degradation products from the lysosomal interior to the cytoplasm or, (iiii) defective **targeting** of **lysosomal** proteins to the **lysosomes**. This excerpt of an oral presentation given at Eurolab 93 starts with a general introduction on lysosomes and lysosomal storage diseases and devotes attention to current issues in this field.

L86 ANSWER 21 OF 41 MEDLINE on STN DUPLICATE 8
AB The synthesis and posttranslational modification of lysosomal acid alpha-**glucosidase** were studied in a cell-free translation system and in mammalian cells transfected with acid alpha-**glucosidase** cDNA constructs. The newly synthesized precursor, sequestered in the endoplasmic reticulum, was demonstrated to be membrane-bound by lack of signal peptide cleavage, and to be catalytically inactive. Sugar chain modification was shown to occur in the Golgi complex and to be dependent on the rate of transport. From the trans-Golgi network different routes were found to be followed by acid alpha-**glucosidase**. A fraction of precursor molecules, proteolytically released from the membrane anchor, appeared to enter the secretory pathway and was recovered from the cell culture medium in a catalytically active form. A second fraction was transported to the lysosomes and was trimmed in a stepwise process at both the amino- and carboxyl-terminal ends. The intramolecular cleavage sites were determined. Involvement of thiol proteinases was demonstrated. Specificity for the natural substrate glycogen was gained during the maturation process. The phosphomannosyl receptor is assumed to be instrumental in the **lysosomal targeting** of acid alpha-**glucosidase**, but a phosphomannosyl receptor-independent transport

of membrane-bound precursor molecules to the lysosomes, either directly or via the plasma membrane, cannot be excluded.

L86 ANSWER 37 OF 41 MEDLINE on STN
AB The principles and methods used for enzymatic modification of the carbohydrate portion of glucocerebrosidase are similar to those performed by Ashwell and Morell, Stahl, and others. It is difficult to explain the lack of uptake of native enzyme through binding of the high-mannose type glycopeptide to Man/GlcNAc receptors since approximately 20% of the total oligosaccharides on the native enzyme are high mannose type. Possibly a requirement for multiple sites of attachment to the receptor is not met by a single high-mannose type oligosaccharide per molecule. Alternatively, the presence of complex type oligosaccharides on this enzyme, demonstrated by structural studies, may mask the mannose site and thus account for the poor uptake of native enzyme. The ability to successfully deglycosylate any protein or enzyme in order to specifically target a selected cell type requires that there be (1) an available source of pure enzyme; (2) specific exoglycosidases of high specific activity available either commercially or relatively easily purified; (3) chemical or biochemical means available for the testing of the product, preferably at each step; and (4) a means of separating the glycosidases used from the desired enzyme product. The characteristic and unique accumulation of glucocerebroside only in cells of the monocyte- histiocyte series, makes Gaucher's disease an excellent prototype for the study of enzyme replacement therapy. The principles demonstrated for the enzymatic deglycosylation of glucocerebrosidase may be applied to the cell-specific delivery of other glycoproteins as well. Other lysosomal diseases in which storage occurs in multiple cell types may be ameliorated by administration of macrophage-directed enzymes if, by so doing, storage material can be digested during the normal phagocytic turnover of senescent cells. Consideration of the kinetics of degradation and the structural features affecting the stability of enzymes in vivo are prerequisites to improving the bioengineering of **targeted lysosomal** enzymes. Animal and culture models have been developed for the study of glucocerebrosidase delivery to specific cell types and substrate degradation. Other studies have progressed toward a definition not only of the receptors at the plasma membrane involved in the internalization of exogenous enzyme, but also of internal receptors or properties of the lysosome responsible for intracellular protein trafficking. A complete understanding of the forces acting to direct endogenous or exogenously supplied enzyme to a given subcellular organelle will require a synthesis of experimental results from all areas of glycoprotein research.

L86 ANSWER 39 OF 41 MEDLINE on STN DUPLICATE 17
AB Highly purified cultures of rat astrocytes and oligodendrocytes were examined for their ability to bind and internalize lysosomal enzymes. Astrocytes displayed a saturable uptake of beta-**glucosidase** and beta-galactosidase. The uptake was specifically inhibited by mannose-6-phosphate but not by several other sugars or sugar phosphates, indicating that the process was mediated by mannose-6-phosphate receptors. When cells were allowed to take up 125I-beta-**glucosidase** for 1 hr at 37 degrees C and subcellular organelles were isolated, the enzyme was shown to comigrate with a lysosomal organelle marker enzyme, suggesting that the enzyme was **targeted** to **lysosomes**. Astrocyte receptors were probed directly by binding of 125I labeled beta-**glucosidase** to astrocyte membranes at 4 degrees C. Binding was saturable and competitively inhibited by mannose-6-phosphate. In contrast to the astrocytes, cultured oligodendrocytes showed no specific binding or uptake of the lysosomal enzymes. Immunocytochemical staining of mixed glial cultures supported the biochemical data; only the astrocytes stained positive with anti-mannose-6-phosphate receptor antibodies.

L86 ANSWER 41 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 19
AB The **targeting** of acid hydrolases to **lysosomes** involves phosphorylation of mannose residues on these enzymes. To determine whether alterations in the structure of the oligosaccharide acceptor affect formation of the mannose 6-phosphate recognition marker, 2 mouse lymphoma cell lines altered in the assembly of asparagine-linked oligosaccharides were studied. Cells were labeled with [2-3H]mannose and the phosphorylated oligosaccharides were isolated and characterized. PhaR2.7 cells, which are deficient in **glucosidase** II activity, formed less oligosaccharide-bound mannose 6-phosphate than parent cells. The major phosphorylated oligosaccharide formed by PhaR2.7 contained a single phosphodiester located on the branch linked .alpha.1,6 to the .beta.-linked mannose; the majority of these molecules were glucosylated. Relatively few oligosaccharides containing 2 phosphate esters were isolated and those formed were not glucosylated. This suggests that glucose residues present on high mannose oligosaccharides prevent phosphorylation of mannose residues on the branch linked .alpha.1,3 to the .beta.-linked mannose. In contrast, Thy-1- cells synthesized a normal level of oligosaccharide-bound mannose 6-phosphate despite forming truncated, high mannose-type units. These oligosaccharides contained only 4 mannose residues and single phosphate, present as either a phosphodiester or phosphomonoester. .beta.-Galactosidase isolated from Thy-1- cells bound to human fibroblast membranes and was endocytosed by intact fibroblasts to a similar extent as parent enzyme. These findings demonstrate that altered high mannose-type oligosaccharides on lysosomal enzymes are phosphorylated. However, the extent of phosphorylation and the distribution of the esters is dependent upon the structure of the acceptor oligosaccharide. In addition, the presence of monophosphorylated oligosaccharides on acid hydrolases is sufficient for their recognition and translocation by the mannose 6-phosphate receptor.

=> d ab 19,24,40,48,49,54,63,86,88,89,103,106,110 161

L61 ANSWER 19 OF 141 MEDLINE on STN
AB The critical step in **lysosomal targeting** of soluble **lysosomal** enzymes is the recognition by an UDP-N-acetylglucosamine:lysosomal enzyme-N-acetylglucosamine-1-phosphotransferase. The structure of the determinant common to all lysosomal enzymes for proper recognition by the phosphotransferase is not completely understood. Our current knowledge is largely based on the introduction of **targeted** amino acid substitutions into **lysosomal** enzymes and analysis of their effects on phosphotransferase recognition. We have investigated the effect of eight anti-arylsulfatase A monoclonal antibodies on the interaction of arylsulfatase A with the lysosomal enzyme phosphotransferase in vitro. We also show that a lysine-rich surface area of arylsulfatases A and B is essential for proper recognition by the phosphotransferase. Monoclonal antibodies bind to at least six different epitopes at different locations on the surface of arylsulfatase A. All antibodies bind outside the lysine-rich recognition area, but nevertheless Fab fragments of these antibodies prevent interaction of arylsulfatase A with the phosphotransferase. Our data support a model in which binding of arylsulfatase A to the phosphotransferase is not restricted to a limited surface area but involves the simultaneous recognition of large parts of arylsulfatase A.

L61 ANSWER 24 OF 141 MEDLINE on STN DUPLICATE 16
AB In mammalian cells, the **mannose** 6-phosphate receptors (MPRs) and the lysosomal glycoproteins, lysosomal-associated membrane protein (LAMP) I, lysosomal integral membrane protein (LIMP) II, are directly transported from the trans-Golgi network to endosomes and lysosomes. While MPR traffic relies on the AP-1 adaptor complex, we report that proper targeting of LAMP I and LIMP II to lysosomes requires the AP-3

adaptor-like complex. Overexpression of these proteins, which contain either a tyrosine- or a di-leucine-based-sorting motif, promotes AP-3 recruitment on membranes. Inhibition of AP-3 function using antisense oligonucleotides leads to a selective misrouting of both LAMP I and LIMP II to the cell surface without affecting MPR trafficking. These results provide evidence that AP-3 functions in the intracellular **targeting** of transmembrane glycoproteins to **lysosomes**.

L61 ANSWER 40 OF 141 MEDLINE on STN DUPLICATE 28
AB alpha-L-Iduronidase is a lysosomal hydrolase that is deficient in Hurler syndrome and clinically milder variants. **Recombinant** human alpha-L-iduronidase, isolated from secretions of an overexpressing Chinese hamster ovary cell line, is potentially useful for replacement therapy of these disorders. Because of the importance of carbohydrate residues for endocytosis and **lysosomal targeting**, we examined the oligosaccharides of **recombinant** alpha-L-iduronidase at each of its six N-glycosylation sites. Biosynthetic radiolabeling showed that three or four of the six oligosaccharides of the secreted enzyme were cleaved by endo-beta-N-acetylglucosaminidase H, with phosphate present on the sensitive oligosaccharides and L-fucose on the resistant ones. For structural analysis, tryptic and chymotryptic glycopeptides were isolated by **lectin** binding and reverse phase high pressure liquid chromatography; their molecular mass was determined by matrix-assisted laser desorption-time of flight mass spectrometry before and after treatment with endo- or exoglycosidases or with alkaline phosphatase. Identification of the peptides was assisted by amino- or carboxyl-terminal **sequence** analysis. The major oligosaccharide structures found at each site were as follows: Asn-110, complex; Asn-190, complex; Asn-336, bisphosphorylated (P2Man7GlcNAc2); Asn-372, high **mannose** (mainly Man9GlcNAc2, some of which was monoglucosylated); Asn-415, mixed high **mannose** and complex; Asn-451, bisphosphorylated (P2Man7GlcNAc2). The Asn-451 glycopeptide was unexpectedly resistant to digestion by N-glycanase unless first dephosphorylated, but it was sensitive to endo-beta-N-acetylglucosaminidase H and to glycopeptidase A. The heterogeneity of carbohydrate structures must represent the accessibility of the glycosylation sites as well as the processing capability of the overexpressing Chinese hamster ovary cells.

L61 ANSWER 48 OF 141 MEDLINE on STN
AB Disorders of glycoprotein synthesis have been described only recently, and few have been studied extensively at both the clinical and biochemical level. The identification and characterization of these rare diseases are important, not only for the patients and their families, but because they offer enormous insight into biological processes. For example, the **targeting** of acid hydrolases to **lysosomes** by **mannose**-6-phosphate was discovered as a direct result of the elucidation of the defect in I-cell disease. The notion of carbohydrates as targeting agents continues to have ramifications today, with the success of macrophage-targeted enzyme replacement therapy for Gaucher disease. Likewise, confirmation of the in vivo role of fucose-containing glycans and selectins in neutrophil function came from studies using specimens from patients with leucocyte adhesion deficiency type II due to reduced availability of GDP-fucose. Identification of the in vivo ligands of selectins also has implications for anti-inflammatory therapies. Macular corneal dystrophy and spondyloepiphyseal dysplasia tarda offer an opportunity to investigate the number of different sulfotransferases in cells, their substrates, and their tissue expression. The Ehlers-Danlos progeroid variant offers insight into the function and regulation of the proteoglycan decorin, and suggests that several of the enzymes involved in proteoglycan synthesis may function as a multienzyme complex. The common occurrence of hypergonadotropic hypogonadism in patients with galactosemia or carbohydrate-deficient glycoprotein protein syndrome, due to defective N-linked glycosylation, suggests that ovarian function is particularly dependent on proper glycan-synthesis. A host of other concepts await

discovery as a fuller contingent of human disorders of glycan synthesis achieves recognition.

L61 ANSWER 49 OF 141 HCAPLUS COPYRIGHT 2003 ACS on STN
AB Unavailable

L61 ANSWER 54 OF 141 MEDLINE on STN DUPLICATE 35
AB We have previously generated primary embryonic fibroblasts lacking either the cation-independent **mannose** 6-phosphate/insulin-like growth factor II receptor (MPR) or the cation-dependent MPR, two trans-membrane proteins that bind the **mannose** 6-phosphate (Man-6-P) recognition marker on soluble lysosomal enzymes (Ludwig, T., Munier-Lehmann, H., Bauer, U., Hollinshead, M., Ovitt, C., Lobel, P., and Hoflack, B.(1994) EMBO J. 13, 3430-3437). These two cell types partially missort phosphorylated lysosomal enzymes. Using two-dimensional gel electrophoresis, we show here that they secrete, in a large part, different phosphorylated ligands. In order to better understand the sorting function of the MPRs, we have re-expressed each MPR in MPR-negative fibroblasts. We show that the MPRs have similar capacities for transporting the bulk of the newly synthesized **lysosomal** enzymes and that they **target** individual ligands with various efficiencies. However, high levels of one MPR do not fully compensate for the absence of the other, demonstrating that the two MPRs have complementary targeting functions, perhaps by recognizing different features on lysosomal enzymes. The analysis of the phosphorylated oligosaccharides shows that the ligands missorted in the absence of the cation-dependent MPR are slightly but significantly depleted in oligosaccharides with two Man-6-P residues, when compared with those missorted in the absence of the cation-independent MPR. While these results could explain some differences between the structure and the sorting function of the two MPRs, they strongly suggest that the reason why cells express two different but related MPRs is to maintain an efficient Man-6-P-dependent targeting process that could be potentially regulated by MPR expression.

L61 ANSWER 63 OF 141 MEDLINE on STN
AB Glycosylasparaginase (EC 3.5.1.26) is a lysosomal amidase which hydrolyzes the bond between asparagine and the sugar moiety in N-linked glycoproteins. Deficiency of the enzyme results in aspartylglycosaminuria (AGU), the most common disorder of glycoprotein degradation. Mature enzyme is formed by two proteolytic cleavage steps subsequent to removal of its signal peptide: (1) an activation cleavage in the ER of the initial single-chain 49-kDa polypeptide into a 27-kDa alpha- and 19-kDa beta-subunit; (2) a cleavage in lysosomes which removes 10 amino acids from the C-terminus of the alpha-subunit without affecting enzyme activity. Each subunit of glycosylasparaginase contains one N-linked oligosaccharide (N38, alpha-subunit; N308, beta-subunit). Both oligosaccharides were phosphorylated and releasable by Endo-H digestion, indicating they were of the high-**mannose** type. These glycosylation sequenons were mutagenized to determine the role of the oligosaccharide at each site in proper folding and transport of glycosylasparaginase. An N38D mutant underwent the **lysosomal** processing step, indicating that **targeting** to **lysosomes** can be via the phosphorylated beta-subunit oligosaccharide alone. Deletion of the beta-subunit oligosaccharide oat N308 by an aspartic acid substitution resulted in very little protein or enzyme activity in the transfected cells, reemphasizing that glycosylation of the beta-subunit site is important for efficient folding and/or targeting. A different mutation to eliminate the same N-glycosylation sequenon (T310A) yielded more protein and enzyme activity, and a double mutant N38D/T310A yielded the same results as the single beta-subunit substitution. Yield of enzyme for all mutants was increased in cells treated with brefeldin A. The N308 glycosylation site of the beta-subunit appears to be more important in maintaining normal transport and stability of human glycosylasparaginase.

L61 ANSWER 86 OF 141 MEDLINE on STN DUPLICATE 54
AB Phosphorylation of **mannose** residues on N-linked oligosaccharide side chains of **lysosomal** enzymes **targets** them to **lysosomes**. We used site-directed mutagenesis to observe the effect of eliminating selective glycosylation sites from human beta-glucuronidase on enzyme sorting. Expression studies allowed us to determine which of four potential sites were glycosylated, preferentially phosphorylated, and required for catalytic activity. All four sites of the human enzyme were glycosylated, whereas in the mouse and rat enzymes, only three of four sites are used. Sites 2 and 3 were preferentially phosphorylated. Elimination of sites 2 and 3 in combination markedly decreased sorting to lysosomes and increased enzyme secretion. Each of the four glycosylation sites could be eliminated individually without drastic reduction in catalytic activity. Activity was progressively lost as combinations of two, three, and four sites were eliminated. Wild-type enzyme produced in the presence of tunicamycin was also inactive, indicating that glycosylation is required for realization of enzyme activity. However, active enzyme could be deglycosylated with only minimal loss of activity. Mutant enzyme completely lacking glycosylation did not form tetramers. Partial restoration of tetramerization was achieved by the co-expression of normal rat enzyme, provided that the normal rat enzyme supplied at least two subunits to the tetramer.

L61 ANSWER 88 OF 141 MEDLINE on STN DUPLICATE 56
AB In mammalian cells two **mannose** 6-phosphate receptors (MPRs) are involved in lysosomal enzyme transport. To understand the precise function of the cation-dependent **mannose** 6-phosphate receptor (CD-MPR), one allele of the corresponding **gene** has been disrupted in mouse embryonic stem cells and homozygous mice lacking this receptor have been generated. The homozygous mice appear normal, suggesting that other targeting mechanisms can partially compensate for the loss of the CD-MPR in vivo. However, homozygous receptor-deficient cells and animals clearly exhibit defects in **targeting** of multiple **lysosomal** enzymes when compared with wild-types. Increased levels of phosphorylated lysosomal enzymes were present in body fluids of homozygous animals. In thymocytes from homozygous mice or in primary cultures of fibroblasts from homozygous embryos, there is a marked increase in the amount of phosphorylated lysosomal enzymes that are secreted into the extracellular medium. The cultured fibroblasts have decreased intracellular levels of multiple lysosomal enzymes and accumulate macromolecules within their endosomal/lysosomal system. Taken together, these results clearly indicate that the CD-MPR is required for efficient intracellular **targeting** of multiple **lysosomal** enzymes.

L61 ANSWER 89 OF 141 MEDLINE on STN DUPLICATE 57
AB Lysosomal enzymes containing **mannose** 6-phosphate recognition markers are sorted to lysosomes by **mannose** 6-phosphate receptors (MPRs). The physiological importance of this targeting mechanism is illustrated by I-cell disease, a fatal lysosomal storage disorder caused by the absence of **mannose** 6-phosphate residues in lysosomal enzymes. Most mammalian cells express two MPRs. Although the binding specificities, subcellular distribution and expression pattern of the two receptors can be differentiated, their coexpression is not understood. The larger of the two receptors with an M(r) of approximately 300,000 (MPR300), which also binds IGFII, appears to have a dominant role in **lysosomal** enzyme **targeting**, while the function of the smaller receptor with an M(r) of 46,000 (MPR46) is less clear. To investigate the in vivo function of the MPR46, we generated MPR46-deficient mice using **gene** targeting in embryonic stem cells. Reduced intracellular retention of newly synthesized lysosomal proteins in cells from MPR46 -/- mice demonstrated an essential sorting function of MPR46. The phenotype of MPR46 -/- mice was normal, indicating

mechanisms that compensate the MPR46 deficiency in vivo.

L61 ANSWER 103 OF 141 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
AB Lysosomal enzymes are subjected to a number of modifications including carbohydrate restructuring and proteolytic maturation. Some of these reactions support **lysosomal targeting**, others are necessary for activation or keeping the enzyme inactive before being segregated, while still others may be adventitious. The non-segregated fraction of the enzyme is secreted and can be isolated from the medium. It is considered that the secreted lysosomal enzymes fulfill certain physiological and pathophysiological roles. By comparing the secreted and the intracellular enzymes it is possible to distinguish between the reactions that occur before and after the segregation. In this review the reactions that may influence the segregation are referred to as the early processing and those characteristic for the enzymes isolated from lysosomal compartments as the late processing. The early processing is characterized mainly by modifications of carbohydrate side chains. In the late processing, proteolytic fragmentation represents the most conspicuous changes. The review focuses on the compartmentation of the reactions and the proteolytic fragmentation of lysosomal enzyme precursors. While a plethora of proteolytic reactions are involved, our knowledge of the proteinases responsible for the particular maturation reactions remains very limited. The review points also to work with cells from patients affected with lysosomal storage disorders, which contributed to our understanding of the lysosomal apparatus.

L61 ANSWER 106 OF 141 MEDLINE on STN
AB Lysosomal enzymes contain a common protein determinant that is recognized by UDP-GlcNAc:lysosomal enzyme N-acetylglucosamine-1-phosphotransferase, the initial enzyme in the biosynthesis of **mannose**-6-P residues. Previously, we generated a lysosomal enzyme recognition domain by substituting two regions (lysine 203 and amino acids 265-292) of the lysosomal hydrolase cathepsin D into a related secretory protein glycopepsinogen. When expressed in Xenopus oocytes, the oligosaccharides of the chimeric protein were efficiently phosphorylated (Baranski, T. J., Faust, P. L., and Kornfeld, S. (1990) Cell 63, 281-291). In the current study, incremental substitutions of cathepsin D residues into glycopepsinogen and alanine-scanning mutagenesis were utilized to define the recognition domain more precisely. A computer-generated model of the cathepsin D/pepsinogen chimeric molecule served as a guide for mutagenesis and for the interpretation of results. These studies indicate that the recognition domain is a surface patch that contains multiple interacting sites. There is a strict positional requirement for the lysine residue at position 203.

L61 ANSWER 110 OF 141 MEDLINE on STN DUPLICATE 66
AB Recent studies have established that in mammalian cells insulin-like growth factor-II can couple the large **mannose**-6-phosphate receptor to a GTP-binding protein and that the insulin-like growth factor-II-induced activation of the GTP-binding protein is inhibited by **mannose**-6-phosphate and lysosomal enzymes. In mouse, the **gene** for the large **mannose**-6-phosphate receptor is maternally imprinted.

=> d ab 130, 133,136 161

L61 ANSWER 130 OF 141 MEDLINE on STN

L61 ANSWER 133 OF 141 MEDLINE on STN DUPLICATE 81
AB The **targeting** of **lysosomal** enzymes from their site of synthesis in the rough endoplasmic reticulum (RER) to their final destination in lysosomes is directed by a series of protein and carbohydrate recognition signals on the enzymes. Lysosomal enzymes, along

with secretory and plasma membrane proteins, contain amino-terminal signal **sequences** that direct the vectorial discharge of the nascent proteins into the lumen of the RER. The three classes of proteins also share a common peptide signal for asparagine glycosylation. The next signal is unique to lysosomal enzymes and permits their high-affinity binding to a specific phosphotransferase that catalyzes the formation of the **mannose** 6-phosphate recognition marker. This carbohydrate determinant allows binding to specific receptors that translocate the lysosomal enzymes from the Golgi complex to an acidified prelysosomal compartment. There the lysosomal enzymes are discharged for final packaging into lysosomes. Two distinct **mannose** 6-phosphate receptors have been identified, and cDNAs encoding their entire **sequences** have been cloned. An analysis of the deduced amino acid **sequences** of the receptors shows that each is composed of four structural domains: a signal **sequence**, an extracytoplasmic amino-terminal domain, a hydrophobic membrane-spanning region, and a cytoplasmic domain. The entire extracytoplasmic region of the small receptor is homologous to the 15 repeating domains that constitute the extracytoplasmic portion of the large receptor.

L61 ANSWER 136 OF 141 LIFESCI COPYRIGHT 2003 CSA on STN
AB This review covers: Principles of the **recombinant** DNA approach; genetic manipulation; insertion of proteins into and across the membrane of the ER; targeting of proteins to the cell surface; the **mannose** 6-phosphate signal of **lysosomal** hydrolases; **targeting** of proteins into the nucleus; targeting of proteins into mitochondria; and targeting of proteins into chloroplasts.

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FILE 'NTIS'
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FILE 'ESBIOBASE'
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          1558 ACETYLGLUCOSAMINE
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L9          33 (GLCNAC OR ACETYLGLUCOSAMINE)(5A)PHOSPHOTRANSFERASE#

FILE 'BIOTECHNO'
          2328 GLCNAC
          2814 ACETYLGLUCOSAMINE
          6691 PHOSPHOTRANSFERASE#
L10         73 (GLCNAC OR ACETYLGLUCOSAMINE)(5A)PHOSPHOTRANSFERASE#

FILE 'WPIDS'
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           505 ACETYLGLUCOSAMINE
           272 PHOSPHOTRANSFERASE#
L11          8 (GLCNAC OR ACETYLGLUCOSAMINE)(5A)PHOSPHOTRANSFERASE#

TOTAL FOR ALL FILES
L12        746 (GLCNAC OR ACETYLGLUCOSAMINE)(5A) PHOSPHOTRANSFERASE#

=> s l12(5a)human
FILE 'MEDLINE'
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```
       8220784 HUMAN
L13          4 L1 (5A)HUMAN

FILE 'SCISEARCH'
       1052388 HUMAN
L14          3 L2 (5A)HUMAN

FILE 'LIFESCI'
        325578 HUMAN
L15          0 L3 (5A)HUMAN

FILE 'BIOTECHDS'
         57793 HUMAN
L16          1 L4 (5A)HUMAN

FILE 'BIOSIS'
       5523089 HUMAN
L17         11 L5 (5A)HUMAN

FILE 'EMBASE'
       4805388 HUMAN
L18          5 L6 (5A)HUMAN

FILE 'HCAPLUS'
       1175737 HUMAN
L19         13 L7 (5A)HUMAN

FILE 'NTIS'
         81706 HUMAN
L20          0 L8 (5A)HUMAN

FILE 'ESBIOBASE'
        364239 HUMAN
L21          0 L9 (5A)HUMAN

FILE 'BIOTECHNO'
        714420 HUMAN
L22          2 L10(5A)HUMAN

FILE 'WPIDS'
        129154 HUMAN
L23          1 L11(5A)HUMAN

TOTAL FOR ALL FILES
L24         40 L12(5A) HUMAN

=> dup rem l24
PROCESSING COMPLETED FOR L24
L25         22 DUP REM L24 (18 DUPLICATES REMOVED)

=> d tot

L25  ANSWER 1 OF 22  HCAPLUS  COPYRIGHT 2003 ACS on STN
TI   Method for production of highly phosphorylated human acid
     .beta.-glucocerebrosidase (GBA), and use of GBA in treating bone or lung
     tissue of patient with Gaucher's disease
SO   U.S. Pat. Appl. Publ., 54 pp.
     CODEN: USXXCO
IN   Canfield, William
AN   2003:550993  HCAPLUS
DN   139:112730
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     --------------    ----  --------      --------------   --------
PI   US 2003133924      A1   20030717      US 2001-24197    20011221
```

L25 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Soluble **human acetylglucosamine**-1-**phosphotransferase** containing an artificial proteolytic cleavage site to generate .alpha. and .beta. subunits
SO U.S. Pat. Appl. Publ., 55 pp.
CODEN: USXXCO
IN Canfield, William; Kudo, Mariko
AN 2003:492554 HCAPLUS
DN 139:65404

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003119088	A1	20030626	US 2001-23888	20011221
WO 2003057826	A2	20030717	WO 2002-US37624	20021220

PI
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

L25 ANSWER 3 OF 22 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
TI Novel N-acetylglucosamine-1-phosphotransferase and N-acetylglucosamine-1-phosphodiester-alpha-N-acetylglucosaminidase, useful for producing phosphorylated lysosomal hydrolase for treating lysosomal storage diseases;
vector-mediated gene transfer and expression in host cell, monoclonal antibody and hybridoma
AU Canfield W M
AN 2001-09921 BIOTECHDS
PI WO 2001019955 22 Mar 2001

L25 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Cloning and functional expression of the human GlcNAc-1P transferase, the enzyme for the committed step of the dolichol cycle, by heterologous complementation in Saccharomyces cerevisiae
SO Glycobiology (1998), 8(1), 77-85
CODEN: GLYCE3; ISSN: 0959-6658
AU Eckert, Volker; Blank, Michaela; Mazhari-Tabrizi, Ramin; Mumberg, Dominik; Funk, Martin; Schwarz, Ralph T.
AN 1998:119172 HCAPLUS
DN 128:253554

L25 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Lysosomal enzyme phosphorylation. II. Protein recognition determinants in either lobe of procathepsin D are sufficient for phosphorylation of both the amino and carboxyl lobe oligosaccharides
SO Journal of Biological Chemistry (1992), 267(32), 23349-56
CODEN: JBCHA3; ISSN: 0021-9258
AU Cantor, Alan B.; Baranski, Thomas J.; Kornfeld, Stuart
AN 1992:587144 HCAPLUS
DN 117:187144

L25 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Lysosomal enzyme phosphorylation. I. Protein recognition determinants in both lobes of procathepsin D mediate its interaction with UDP-GlcNAc:lysosomal enzyme N-acetylglucosamine-1-phosphotransferase
SO Journal of Biological Chemistry (1992), 267(32), 23342-8
CODEN: JBCHA3; ISSN: 0021-9258

AU Baranski, Thomas J.; Cantor, Alan B.; Kornfeld, Stuart
AN 1992:587145 HCAPLUS
DN 117:187145

L25 ANSWER 7 OF 22 MEDLINE on STN DUPLICATE 2
TI Purification and characterization of **human** lymphoblast N-**acetylglucosamine**-1-**phosphotransferase**.
SO GLYCOBIOLOGY, (1992 Apr) 2 (2) 119-25.
Journal code: 9104124. ISSN: 0959-6658.
AU Zhao K W; Yeh R; Miller A L
AN 92298029 MEDLINE

L25 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Mapping and molecular modeling of a recognition domain for lysosomal enzyme targeting
SO Journal of Biological Chemistry (1991), 266(34), 23365-72
CODEN: JBCHA3; ISSN: 0021-9258
AU Baranski, Thomas J.; Koelsch, Gerald; Hartsuck, Jean A.; Kornfeld, Stuart
AN 1991:627034 HCAPLUS
DN 115:227034

L25 ANSWER 9 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 3
TI ELEVATED CARBOHYDRATE PHOSPHOTRANSFERASE ACTIVITY IN HUMAN HEPATOMA AND PHOSPHORYLATION OF CATHEPSIN D.
SO BR J CANCER, (1991) 63 (6), 905-908.
CODEN: BJCAAI. ISSN: 0007-0920.
AU OHHIRA M; GASA S; MAKITA A; SEKIYA C; NAMIKI M
AN 1991:410623 BIOSIS

L25 ANSWER 10 OF 22 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI ELEVATED CARBOHYDRATE PHOSPHOTRANSFERASE ACTIVITY IN HUMAN HEPATOMA AND PHOSPHORYLATION OF CATHEPSIN-D
SO BRITISH JOURNAL OF CANCER, (1991) Vol. 63, No. 6, pp. 905-908.
AU OHHIRA M; GASA S (Reprint); MAKITA A; SEKIYA C; NAMIKI M
AN 91:384702 SCISEARCH

L25 ANSWER 11 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI BIOCHEMICAL HETEROGENEITY AND PRENATAL DIAGNOSIS OF MUCOLIPIDOSES II AND III.
SO PROCEEDINGS OF THE 8TH INTERNATIONAL CONGRESS OF HUMAN GENETICS, WASHINGTON, D.C., USA, OCTOBER 6-11, 1991. AM J HUM GENET. (1991) 49 (4 SUPPL), 94.
CODEN: AJHGAG. ISSN: 0002-9297.
AU BEN-YOSEPH Y; MITCHELL D A; YAGER R M
AN 1992:112469 BIOSIS

L25 ANSWER 12 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI **HUMAN** LYMPHOBLAST N **ACETYLGLUCOSAMINE**-1-**PHOSPHOTRANSFERASE** PARTIAL PURIFICATION AND CHARACTERIZATION.
SO JOINT MEETING OF THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, AND THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS, NEW ORLEANS, LOUISIANA, USA, JUNE 4-7, 1990. FASEB (FED AM SOC EXP BIOL) J. (1990) 4 (7), A1980.
CODEN: FAJOEC. ISSN: 0892-6638.
AU ZHAO K; YEH R; MILLER A L
AN 1990:346154 BIOSIS

L25 ANSWER 13 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI PRENATAL DIAGNOSIS OF I-CELL DISEASE IN THE FIRST AND SECOND TRIMESTERS.
SO AM J MED SCI, (1989) 297 (6), 361-364.
CODEN: AJMSA9. ISSN: 0002-9629.
AU PARVATHY M R; MITCHELL D A; BEN-YOSEPH Y
AN 1989:445784 BIOSIS

L25 ANSWER 14 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI CORRECTION OF CLASSICAL MUCOLIPIDOSIS III BY GENE TRANSFER.
SO 40TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF HUMAN GENETICS, BALTIMORE, MARYLAND, USA, NOVEMBER 11-15, 1989. AM J HUM GENET. (1989) 45 (4 SUPPL), A5.
CODEN: AJHGAG. ISSN: 0002-9297.
AU FOWLER M L; SHOWS T B
AN 1990:40514 BIOSIS

L25 ANSWER 15 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI A VARIANT OF MUCOLIPIDOSIS II. CLINICAL BIOCHEMICAL AND PATHOLOGICAL INVESTIGATIONS.
SO Eur. J. Pediatr., (1988) 147 (3), 321-327.
CODEN: EJPEDT. ISSN: 0340-6199.
AU POENARU L; CATELNAU L; TOME F; BOUE J; MAROTEAUX P
AN 1988:318271 BIOSIS

L25 ANSWER 16 OF 22 MEDLINE on STN DUPLICATE 4
TI Glucose-1-phosphotransferase and N-acetylglucosamine-1-phosphotransferase have distinct acceptor specificities.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1987 Mar 25) 262 (9) 4377-81.
Journal code: 2985121R. ISSN: 0021-9258.
AU Hiller A M; Koro L A; Marchase R B
AN 87166059 MEDLINE

L25 ANSWER 17 OF 22 MEDLINE on STN DUPLICATE 5
TI Properties of N-**acetylglucosamine** 1-**phosphotransferase** from **human** lymphoblasts.
SO BIOCHEMICAL JOURNAL, (1987 Nov 15) 248 (1) 151-9.
Journal code: 2984726R. ISSN: 0264-6021.
AU Little L; Alcouloumre M; Drotar A M; Herman S; Robertson R; Yeh R Y; Miller A L
AN 88133837 MEDLINE

L25 ANSWER 18 OF 22 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
TI PROPERTIES OF N-**ACETYLGLUCOSAMINE** 1-**PHOSPHOTRANSFERASE** FROM **HUMAN**-LYMPHOBLASTS
SO BIOCHEMICAL JOURNAL, (1987) Vol. 248, No. 1, pp. 151-159.
AU LITTLE L (Reprint); ALCOULOUMRE M; DROTAR A M; HERMAN S; ROBERTSON R; YEH R Y; MILLER A L
AN 87:642689 SCISEARCH

L25 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
TI Heterogeneity of N-acetylglucosamine 1-phosphotransferase within mucolipidosis III
SO Journal of Biological Chemistry (1986), 261(2), 733-8
CODEN: JBCHA3; ISSN: 0021-9258
AU Little, Laureen E.; Mueller, O. Thomas; Honey, Neville K.; Shows, Thomas B.; Miller, Arnold L.
AN 1986:107397 HCAPLUS
DN 104:107397

L25 ANSWER 20 OF 22 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
TI A MODEL SYSTEM TO STUDY **HUMAN** N **ACETYLGLUCOSAMINE**-1-**PHOSPHOTRANSFERASE**.
SO 69TH ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, ANAHEIM, CALIF., USA, APR. 21-26, 1985. FED PROC. (1985) 44 (5), 1408.
CODEN: FEPRA7. ISSN: 0014-9446.
AU LITTLE L E; ALCOULOMBRE M; DROTAR A M; MILLER A L
AN 1985:150907 BIOSIS

L25 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN

TI UDP-N-acetylglucosamine:lysosomal enzyme precursor N-acetylglucosamine-1-phosphotransferase. Partial purification and characterization of the rat liver Golgi enzyme
SO Journal of Biological Chemistry (1982), 257(20), 12322-31
CODEN: JBCHA3; ISSN: 0021-9258
AU Waheed, Abdul; Hasilik, Andrej; Von Figura, Kurt
AN 1983:13458 HCAPLUS
DN 98:13458

L25 ANSWER 22 OF 22 MEDLINE on STN DUPLICATE 6
TI Phosphorylation of lysosomal enzymes in fibroblasts. Marked deficiency of N-acetylglucosamine-1-phosphotransferase in fibroblasts of patients with mucolipidosis III.
SO HOPPE-SEYLERS ZEITSCHRIFT FUR PHYSIOLOGISCHE CHEMIE, (1982 Feb) 363 (2) 169-78.
Journal code: 2985060R. ISSN: 0018-4888.
AU Waheed A; Hasilik A; Cantz M; von Figura K
AN 82140517 MEDLINE

=> d ab 3,4

L25 ANSWER 3 OF 22 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
AB Isolated **human** N-**acetylglucosamine**-1-**phosphotransferase** (**GlcNAc-phosphotransferase**) and N-**acetylglucosamine**-1-phosphodiester-alpha-N-acetylglucosaminidase (phosphodiester-alpha-GlcNAcase, EC-3.1.4.45), is new. Also claimed are: nucleic acids encoding GlcNAc-phosphotransferase and phosphodiester alpha-GlcNAcase; vector containing the nucleic acids; host cell containing the vector; preparation of GlcNAc-phosphotransferase or phosphodiester-alpha-GlcNAcase; nucleic acids encoding mouse GlcNAc-phosphotransferase which has an alpha-subunit, beta-subunit and gamma-subunit and mouse phosphodiester-alpha-GlcNAcase; vector and host cell transformed with this vector; preparation of mouse GlcNAc-phosphotransferase and phosphodiester-alpha-GlcNAcase; lysosomal hydrolase containing a mannose-6-phosphate; phosphorylated lysosomal hydrolase; producing a high mannose lysosomal hydrolase; high mannose lysosomal hydrolase; and monoclonal antibodies produced by PT18 hybridoma (ATCC PTA 2432) or UC1 hybridoma (ATCC 2431). The GlcNAc-phosphotransferase and phosphodiester-alpha-GlcNAcase are useful for producing a phosphorylated lysosomal hydrolase for treating lysosomal storage disease. (91pp)

L25 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AB The gene for the human dolichol cycle GlcNAc-1-P transferase (ALG7/GPT) was cloned by screening a human lung fibroblast cDNA library. The library was constructed in a Saccharomyces cerevisiae expression vector, and the pos. clone was identified by complementation of the conditional lethal S.cerevisiae strain YPH-A7-GAL. This strain was constructed by replacing the endogenous promoter of the GPT-gene by the stringently regulated GAL1-promoter. This construct allows to specifically suppress the endogenous enzyme activity. The insert of the pos. clone displayed an open reading frame of 1200 nucleotides, coding for a putative protein of 400 amino acids with a calcd. mol. wt. of 44.7 kDa. The deduced protein sequence shows a homol. of over 90% when compared with other mammalian GPT sequences, thus resembling the close phylogenetic relation between mammalian species. This homol. however decreases to 40-50% when compared to more distantly related organisms such as S. cerevisiae, Schizosaccharomyces pombe, or Leishmania amazonensis. Biochem. characterization of the recombinant protein showed that it is functionally expressed in the S. cerevisiae strain YPH-A7-GAL. GlcNAc- and GlcNAc2-PP-Dolichol biosynthesis could be shown with isolated S.cerevisiae membranes from cells harboring the recombinant plasmid and grown on glucose thus suppressing transcription of the endogenous gene. Synthesis

could be stimulated by dolichol phosphate and was inhibited by tunicamycin. These results show that the authors have cloned the human GlcNAc-1-P transferase by heterologous complementation in S.cerevisiae, a strategy that may be useful for the cloning and characterization of glycosyltransferases from a variety of organisms.

=> LOG Y

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